THE IMPACT OF SOCIAL CONTEXT ON THE CONCEPTUALIZATION OF SEXUAL ORIENTATION: A CONSTRUCT VALIDITY INVESTIGATION

DISSERTATION

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By

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ABSTRACT

Despite the volume of research and theory addressing the definition of sexual orientation, there has never been a widely accepted consensus on how the construct of sexual orientation should be defined. When assessing sexual orientation to assign individuals to different cohorts, the vast majority of researchers do so with the essentialist assumption that whatever components they use to define and measure sexual orientation (a) are valid, and (b) mean the same thing to all individuals despite variations in social context. This approach is questionable because, while certain components have been hypothesized to be part of the construct, the accuracy of these components has never been tested for construct validity among different sexual orientation communities. The most common method of assessing sexual orientation for research is through self-reported label (Chung & Katayama, 1996), which has received some support as a valid measure (Weinrich, 1993). The purpose of the present study was to examine sexual orientation constructs used by the academic community for construct validity among individuals in heterosexual, lesbian, gay, bisexual, and transgendered (LGBT), and academic (expert) communities. The second purpose was to examine personal identification with components of sexual orientation for comparability with self-reported label, as obtained in the Demographics section. The results of this study indicated that significant differences in socially constructed meaning existed for 11 of the 14 examined

components: Sexual Behavior, Fantasy, Social Preference, Relationship Status, Sexual Orientation Identity Acceptance, Gender Identity, Sex Role Identity, Social Context, Sociocultural experiences, and Biology. The data suggested that only Self-Identified Sexual Orientation Label, Emotional Preference, and Time maintained their meaning and value across sexual orientation, sex, and expert versus layperson communities. Sexual Attraction was rated as most important in conceptualizing sexual orientation by every cohort, although significant differences in these ratings across groups were present.

In particular, the expert sample rated the components of Attraction, Sexual Orientation Self-Identification, Fantasy, and Emotional Preference as most important in conceptualizing sexual orientation, whereas the LGBT group rated Attraction, Emotional Preference, Sexual Orientation Self-Identification, and Sexual Orientation Identity Acceptance as most important, and the heterosexual sample rated Attraction, Sexual Orientation Identity Acceptance, Behavior, Gender Identity, and Sexual Orientation Self-Identification as the most important. Ratings of components were also analyzed by sexual orientation group (homosexual, bisexual, and heterosexual), sex (male, female, and transgendered), and sex-by-sexual orientation, where some data emerged indicating significant differences in the conceptualization of sexual orientation by these social contexts as well.

Finally, in support of the proposed hypothesis, personal identification with the examined components in this study corresponded strongly with each component, and with overall 'profile' scores (averages), of every examined cohort.

The present study provides some evidence that social context does play a role in the social construction of sexual orientation. It also provides support for self-reported Self-Identified Sexual Orientation label as an accurate measure for grouping participants into sexual orientation cohorts for research purposes. Implications of these findings for counseling psychology and future research are discussed.

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CHAPTER 1

INTRODUCTION

Background and Problem Statement

Sexual orientation – and issues surrounding sexual orientation minority populations – has steadily advanced to the forefront of Western socio-political issues in the 21st century. Most recently, the increasing attention paid to lesbian, gay, bisexual, and transgendered (LGBT) issues by politicians, legislatures, and courts, has become visible in such areas as non-heterosexual marriage, adoption rights, and military service (Bailey, 2000). The issue of gay marriage alone has prompted political and judicial battles which may well result in a constitutional amendment forbidding such unions in the United States. Sexual minorities have garnered increased attention in nearly every area of Western society, including the academic and research community. (Bailey, 2000)

With the increased political and social focus on sexual minorities, an accompanying explosion of sexual orientation research has occurred over the course of the past century (Chung &Katayama, 1996). One of the most basic problems to emerge in this research was the question of how to categorize participants into sexual orientation cohorts (Neighbors, 2000). If a man identifies as homosexual, for instance, but reports

currently engaging in sexual activities with men and women, to what sexual orientation cohort should a researcher assign him? If an adolescent woman identifies as heterosexual, has never engaged in sexual behaviors with anyone in her life, but admits to fantasies involving sexual encounters with other girls, how might an investigator classify her in a study? The fundamental question to emerge from sexual orientation research is, paradoxically, what constitutes sexual orientation.

The debate over how to conceptualize sexual orientation began with the release of Kinsey, Pomeroy, and Martin's (1948, 1953) seminal works, *Sexuality of the Human Male* and *Sexuality of the Human Female*. These findings set the precedent for modern sexuality research, but also set the stage for future controversy. The Kinsey Scale established the first normative model of human sexual preference, and is still among the most widely used sexual orientation assessment scales today. Not only were these results the first to define non-heterosexuality as non-pathological, but were also the first to conceptualize sexual orientation as existing on a continuum (Kinsey, Pomeroy, & Martin. 1948, 1953). Traditional views of sexuality held that heterosexuality and homosexuality existed as discreet entities. The original Kinsey Scale broke with tradition by presenting homosexuality and heterosexuality at opposite ends of the same continuum. The original Kinsey Scale consisted of a simple 0-6 rating of an individual's sexual behavior, with 0 corresponding to exclusively heterosexual, 6 to exclusively homosexual, and 1-5 corresponding to various degrees of bisexuality. This single continuum model reflected a definition of sexual orientation that had only one defining component: behavior. This definition excluded many other elements of sexuality, such as attraction and fantasy

components, independent of behavior. Furthermore, the exclusion of other constructs in the definition of sexual orientation constituted an important empirical problem. Kinsey's definition was not based on data but upon social convention. Thus, as the social climate changed towards sexuality and sexual orientation in subsequent decades, so too did the social construction of sexual orientation in the realm of research.

Shortly after the release of Kinsey, Pomeroy and Martin's (1948, 1953) findings, researchers and scholars began to challenge the strictly behavioral conceptualization of sexual orientation proposed by the Kinsey Scale (Chung & Katayama, 1996; Bell & Weinberg 1978). It was argued that sexual orientation is too multifaceted a concept to be accurately assessed on the basis of sexual behavior alone (Chung & Katayama, 1996). Bell and Weinberg (1978) provided empirical support for these claims in a replication study of the Kinsey scale in which two dimensions of sexual orientation were offered for respondents to rate. Participants in this study were asked to rate themselves on separate Kinsey Scales for behavior and psychosexual arousal, defined as attraction and/or sexual fantasy. These researchers found that respondents rated themselves differently on each dimension. For example, self-identified homosexual respondents rated their behavior as mostly homosexual, but rated their psychosexual arousal as more toward the middle or bisexual region of the Kinsey Scale. These findings provided empirical support for a multiple-component model of sexual orientation, in which the construct of sexual orientation may consist of multiple components that are distinct and not necessarily consistent with each other.

A variety of models of sexual orientation were proposed after Bell and Weinberg's (1978) findings. The construct has since been conceptualized in a variety of different ways, with components including behavior (Coleman, 1987; DeCecco, Parker, & Allen, 1995; Kinsey, Pomeroy, & Martin, 1948, 1953; Klein 1985, 1990; Sell, 1996; Zea, Reisen, & Diaz, 2003), attraction (Bell & Weinberg, 1978; Coleman, 1987; Klein 1985, 1990; Sell, 1996), fantasy (Coleman, 1987; Klein 1985, 1990; Sell, 1996), self-identification (Coleman, 1987; Klein, 1985, 1990) emotional preference (Coleman, 1987; Klein, 1985, 1990), social preference (Klein, 1985, 1990; Zea, Reisen, & Diaz, 2003), community affiliation (Klein, 1985, 1990; Zea, Reisen, & Diaz, 2003), gender identity (Coleman, 1987; Sell, 1996; Shively & DeCecco, 1977), social context (Zea, Reisen, & Diaz, 2003), sex-role identity (Coleman, 1987; Sell, 1996), genetics and biology (DeCecco, Parker, & Allen, 1995; Dube, 2000) and assorted combinations of the above in past, present, and future contexts (Klein, 1990). Construct validity may be understood as the degree to which inferences can legitimately be made from operationalizations to the theoretical constructs on which those operationalizations were based (Trochim, 2002). Despite the volume of research and theory addressing the definition of sexual orientation, there has never been a widely accepted consensus on how the construct of sexual orientation should be defined. Thus, the construct validity of sexual orientation is greatly in need of investigation. Some researchers have acknowledged the prevailing confusion surrounding the issue of defining the construct of sexual orientation and any related constructs such as lesbian, gay, bisexual, or transgendered, but most researchers ignore this issue when conducting research on sexual minority groups (Sell & Petrulio, 1996).

Currently, Self-Reported Sexual Orientation Label is the most commonly used assessment in sexual orientation research (Chung & Katayama, 1996), and this component has received some empirical support as an accurate measure (Weinrich, 1993). Weinrich (1993) in his factor analysis of the multi-component Klein Grid (1985), reported findings that Self-Reported Sexual Orientation Label was the best predictor of multi-component sexual orientation scale averages (i.e., profile scores) of any other single component. Still, many scientists devise their own unique methods of grouping participants into sexual orientation categories, often based on no theoretical framework or supporting evidence. It is not clear that these researchers are measuring the same populations, though all claim to do so. Without commonly recognized definitions and clearly stated theoretical framework to accurately group participants into cohorts consistently across studies, the general body of sexual orientation-related research is weakened, and future research in this area may be limited in generalizability across studies.

Another problem related to the construct of sexual orientation in research is that scholars have traditionally ignored the socially constructed nature of sexual orientation. Social construction refers to the phenomenon of societies throughout history developing their own unique classification systems to identify and label individuals who display a certain set of traits or behaviors (Neighbors, 2000). The culturally and socially accepted meaning of sexuality and sexual orientation has evolved throughout history, and its meaning in the modern community at large has not been thoroughly examined. Furthermore, possible differences in defining sexual orientation within different

communities (i.e., heterosexual and LGBT communities) have likewise not been explored. However, there is both direct and indirect evidence which suggests that such differences exist. In a recent study that asked mostly heterosexual male and female participants to judge the sexual orientation of subjects within written vignettes, Neighbors (2000) demonstrated that sexual orientations are perceived and defined differently based upon the sex of vignette subjects. Similarly, several studies investigating partner preferences have found significant differences between heterosexual and homosexual men and women in the characteristics they find most important in a significant other (Bailey et al, 1994; Kenirick et al., 1995; Rust, 1992). Furthermore, it has been suggested that some homosexual lifestyles are driven as much by affective or emotional preferences then physical sexual attraction alone (Jagose, 1996; Rust, 1992).

In traditional research in the area of sexual orientation, an assumption is usually made that whatever definitions researchers decide upon are implicitly held and understood by the populations being sampled. This stance has been identified as essentialist, in that sexual orientation is considered to exist as a fixed entity within an individual, such that if one were to peel away the layers of cultural expectations, bias, self-deception, and any other interference, that the natural essence of one's sexual orientation would remain (Rust, 1995). It has been argued that multi-component measurements inquire into related areas such as fantasy, emotional preference, etc., in an effort to trick or deceive participants into honestly relating their sexual orientations when self-deception, social conformity, or other biases cause them to be reluctant to self-identify as homosexual or bisexual (Neighbors, 2000). In contrast, the social

constructionist view of sexual orientation maintains that sexual behaviors and preferences have existed throughout history, and it is each society itself which creates the categories and labels by which to identify people (Rust, 1995). It is for this reason, in the social constructionist view, the current social construction of the construct of sexual orientation must be understood. To date, however, it has never been demonstrated that researchers' beliefs about what components are important in defining sexual orientation are shared by the populations under investigation. This gap in the literature forms the basis of the present investigation. For the purposes of the present study, heterosexual and LGBT laymen and women were defined as non-researchers or non-scholars in the field of sexual orientation research. If the beliefs of laypersons differ from those of the experts in terms of what sexual orientation means, then sexual orientation assessment items written by these researchers may mean something entirely different to participants. Furthermore, if participants' community affiliation (i.e., heterosexual or LGBT) influences which components they believe are most critical in defining one's sexual orientation, then the same items used to assess sexual orientation may mean something different to each participant based upon his or her community affiliation. A fundamental principle of survey research is that an item must mean the same thing to all participants in a study (Walsh & Betz, 2001). If this assumption is violated, existing methodology for grouping participants into sexual orientation cohorts may not be as accurate as many researchers believe them to be.

Statement of Purpose

The purpose of this study was to examine sexual orientation constructs proposed in the academic community for construct validity among individuals in heterosexual, LGBT, and academic communities. To fulfill this purpose, the first goal was to create a survey that incorporated a comprehensive battery of the major components proposed by researchers to be important in conceptualizing sexual orientation. The instrument developed for the present study, the Attitudes Toward Components of Sexual Orientation Scale (ATCSOS), included the components of Sexual Behavior, Sexual Attraction, Fantasy, Emotional Preference, Social Preference, Sexual Orientation Self-Identification, Current Relationship Status, Self-Acceptance of Current Sexual Orientation Identity, Gender Identity, Sex-Role Identity, Social Context, Internalized Sociocultural Experiences, Biology, and Time. The objective in the creation of this instrument was to examine the attitudes of researchers, laymen, and laywomen from heterosexual and non-heterosexual communities as to how important each component is in defining an individual's sexual orientation. Thus, each component on the ATCSOS was rated by participants on a scale from *very important* to *not at all important* in defining ones' sexual orientation. One of the main hypotheses, as discussed in depth in the hypotheses section below, was that participants in the present study will rank certain components more highly than others, thus producing a distinct hierarchy of meaning for the construct of sexual orientation that can be examined for differences across groups.

A second goal of the present study was to achieve further understanding of the social construction of sexual orientation within different sexual orientation communities as well as those defined by other demographic parameters. Another main prediction in

this study was that heterosexual laypersons, LGBT laypersons, and members of the academic/research (expert) community will endorse different rank-ordered hierarchies of ratings when asked to indicate which components are most important in defining sexual orientation. As such one of the primary aims of the present study was to explore the value placed upon different sexual orientation components by individuals of different community backgrounds.

A third goal of this study is to examine participants' personal identification with the components presented in this study. To date, only one study has been conducted to analyze a collection of proposed components of sexual orientation for validity and comparability between groups (Weinrich, 1993). Weinrich (1993) performed a factor analysis on the components of the Klein Grid (1985), a multi-component measure of sexual orientation. Weinrich (1993) reported that of all the components investigated, Self-Identified Sexual Orientation Label was the best predictor of overall sexual orientation profile score. The present study also examined components for correspondence with Self-Identified Sexual Orientation label.

An additional issue to be addressed in light of the stated research goals was the question of how sexual orientation is defined in the present study, and upon what criteria participants are grouped into sexual orientation cohorts. As stated above, some data exist which support the use of Self-Reported Sexual Orientation Label in grouping participants into sexual orientation cohorts (Weinrich, 1993). To incorporate this issue into the present study, participants were asked in the Demographics section to identify which sexual orientation label best describes them (heterosexual, homosexual, or bisexual). In

addition, participants were asked to rate themselves on each of the applicable sexual orientation components included in this study using a 7-point Kinsey-like scale. Each participant, for example, was asked to indicate how same-sex- or opposite-sex-oriented his or her social preferences are, as well as his or her behavior, fantasy, etc., in past, present, and future (ideal) contexts. This methodology created a comparison scale by which to group participants in the present study. This self-rating scale was independent from the scale where participants were asked to rate which components they believe are most important in defining sexual orientation, and was called the Personal Identification Toward Components of Sexual Orientation Scale (PITCSOS). Thus, an analysis of sexual orientation components in defining participants' sexual orientation was conducted independently from the scale in which they indicated which components they believed are most important in defining one's sexual orientation in general. Participants were instructed to indicate informed consent for participation by entering their birth date and a pre-assigned site code supplied in the solicitation materials. Site codes were intended to distinguish participants as belonging to one of the three groups recruited: from exclusively LGBT organizations (site code – LGBT), university undergraduate participants (site code – UNIV), or from scholars or researchers in the area of human sexuality (site code – EXP). The samples in this study were divided into groups based upon site code and sexual orientation data supplied by each participant.

Research Questions and Hypotheses

This study explored hypothesized discrepancies in the meaning of sexual orientation among research community members and laypersons from heterosexual and

LGBT communities. An examination of the semantics of sexual orientation in these different communities stands to achieve a better understanding of the socially constructed meaning of the construct of sexual orientation. The research questions of the present study were as follows:

1. Do individuals believe that certain components are more important in defining one's sexual orientation than others?
2. Do laypersons conceptualize sexual orientation differently than members of the research community?
3. Do heterosexual and LGBT conceptualizations of sexual orientation differ from each other?
4. Are patterns of endorsements for some components of sexual orientation over others predicted by variables of sexual orientation and/or sex? Are there significant interactions between these variables?
5. Do other demographic variables such as sex or race/ethnicity play a role in patterns of endorsements of sexual orientation components?

The following ten hypotheses were based on the above empirical questions and the relevant research and discourse concerning the conceptualization of sexual orientation discussed above and in the following literature review:

1. Participants will rate the importance of each component differently, thus forming a hierarchy or rank-order for each individual which may be summed and averaged for each group under investigation. A main effect of group affiliation (i.e., heterosexual - HET, LGBT, and expert – EXP) cohort will emerge such that cohorts' sexual

orientation component rankings on the Attitudes Toward Sexual Orientation Scale (ATCSOS) differ significantly from each other.

2. A main effect of group affiliation cohort will emerge such that the EXP cohort will rate all components highly in conceptualizing sexual orientation relative to the ratings of the other cohorts. In other words, means will be higher and the variance in researcher ratings between components will be less than that of other groups, suggesting that researchers and scholars in the field are likely to endorse more components as important in defining sexual orientation than those of the community at large.
3. A main effect of group affiliation cohort will emerge such that HET participants will rate overt behavior, biology, and relationship status higher than either the LGBT or EXP cohorts in the conceptualization of sexual orientation.
4. A main effect of group affiliation will emerge such that LGBT participants will rate self-identification label, emotional preference, and social preference components higher than either the HET or EXP cohorts in the conceptualization of sexual orientation.
5. A main effect of self-identified sexual orientation label will emerge such that heterosexual and homosexual cohorts will endorse significantly different hierarchies of sexual orientation components than each other group.
6. A sex effect will emerge such that females will rate sexual attraction higher than any other component in the importance of assessing sexual orientation. Females will also rate emotional preference significantly higher than the other sex cohorts.

7. A sex effect will emerge such that males will rate sexual behavior more highly than any other component in the importance of assessing sexual orientation, and significantly higher than other sex cohorts.
8. A sex by sexual orientation interaction will emerge such that males in the non-heterosexual cohort will rate sexual orientation components higher overall than heterosexual males, indicating a higher level of importance assigned to a greater number of definitional components by non-heterosexual males.
9. A sex by sexual orientation interaction will emerge such that females in the non-heterosexual cohort will rate sexual orientation components more highly overall than will heterosexual females, indicating a higher level of importance assigned to a greater number of definitional components by non-heterosexual females.
10. Participant's self-identified sexual orientation labels (as reported in the demographics section) will correspond with sexual orientation profile ratings, obtained in the Personal Identification Toward Components of Sexual Orientation Scale (PITCSOS).

The relevant research addressing the issues of defining and measuring sexual orientation, though limited, is reviewed in the following chapter. The rationale for the present study is then revisited.

Contribution to the Fields of Psychology and Counseling Psychology

Presently, the theoretical underpinnings of the majority of sexual minority research are vague or unspecified. Similarly, methods of grouping participants into sexual orientation cohorts are grossly inconsistent across studies (Chung & Katayama, 1996). Whether or not such inconsistent methods are sampling the same populations

across studies remains unknown. While this issue represents a potentially wide-reaching problem in the study of sexual minority populations, the literature investigating the problem is still in its early stages. To date, such research has focused on validity and comparison studies between different methods of measuring and classifying sexual orientation groups (i.e., through comparing self-identification label with Kinsey Scale score, Klien Scale, etc) (Weinrich, 1993).

Researchers and theorists in the area of sexuality and sexual orientation research to date have yet to reach a consensus on the definition or operationalization of sexual orientation. The arguments as to which constructs are essential in the definition (and hence, the assessment) of sexual orientation vary dramatically across theories. In response to the debate and controversy over how to conceptualize sexual orientation, researchers have offered contributions in one of two distinct areas. One area is in pure theory proposal or criticism of existing theory. The second area is operationalization based upon theories, in the form of inventories and scales to be used in the field. What is lacking in the debate is construct validity within the populations under investigation. The question "what do you think is most important in defining a person's sexual orientation?" has never been asked directly of actual community members. Furthermore, the constructs theorized by the experts to be of critical importance to the definition have not been examined for validity in the opinion of the population at large. Likewise, the social construction of sexual orientation constructs has not been examined in different sexual orientation communities, or by sex, ethnic, or other demographic variables. Given the current state of debate in the field of psychology over which dimensions are critical to the

construct of sexual orientation, an examination of sexually and demographically diverse laymen and laywomen's assessments of which dimensions are most important to them in defining sexual orientation would constitute a major contribution to the field of psychology.

One of the foundational pillars of counseling psychology is its commitment to serving diverse populations. This commitment to multiculturalism has manifested itself in academia through steadily increasing theoretical and methodological inclusion of diverse populations in empirical research. In this spirit, the field has demonstrated a firm commitment to researching lesbian, gay, bisexual, and transgendered (LGBT) groups as diverse populations with distinct characteristics. If the field of counseling psychology is to uphold its multicultural values in researching sexual minority populations, the researchers in the field have a responsibility to measure the sexual orientation of their research participants accurately. The present study investigated both the social construction and the construct validity of components argued to be important in defining sexual orientation in the field. Counseling psychology stands to benefit from heightened knowledge in this area because a clearer understanding of the definition of sexual orientation held by the populations under study may in turn improve and strengthen the methods by which these populations are studied. In turn, if the methods by which sexual minority populations are classified are improved, research across studies becomes more generalizable and thus of more potential benefit to these diverse populations.

Definitions

This section contains definitions used in the creation and analysis of the present study. Kerlinger (1986) defined a conceptual definition as using constructs to define a construct and operational definitions as assigning meaning to a construct by specifying the operations or activities to measure it. The definitions below represent the conceptual definitions employed in the present study. An important consideration in this investigation is the multiple conceptual and operational definitions that exist for certain constructs which are central to the investigation, in particular sexual orientation. As sexual orientation is the focus of the present study, an overview of the different proposed definitions is warranted. A list of the most historically and academically significant definitions for the construct of sexual orientation are listed with corresponding references in Table 1.1. The definitions for other pertinent constructs used in this study are listed below.

1. Sexual Orientation: See Table 1.1.

2. Heterosexual: This term is derived from the Greek term "hetero" meaning other. Bohan (1996) defined heterosexual as "an affectional and sexual orientation toward members of the other sex" (p. 14). *Webster's New World Dictionary* (Agnes, 2002) focused on attraction rather than affect or behavior, defining heterosexual as "relating to or characterized by a tendency to direct sexual desire toward the opposite sex" (p. 298). For the purposes of the present study, heterosexual was considered broadly as a sexual orientation toward the opposite sex.

3. Homosexual: This term is derived from the Greek "homo," meaning same. *Webster's New World Dictionary* (Agnes, 2002) defined this term as "of, relating to, or

characterized by a tendency to direct sexual desire toward another of the same sex" (p.304). Bohan (1996) presented a slightly different definition in that homosexual is widely considered to be "a clinical or diagnostic term for a person whose affectional and sexual orientation is directed toward members of the same sex" (p. 14). This study also considered this term broadly as referring to sexual orientation toward the same sex.

4. Bisexual: Most authors seem to agree that this term refers to a sexual orientation toward both sexes, although the specific variables that determine categorical grouping show the same variation as definitions of heterosexual and homosexual (McKeen, 2005; Bohan, 1996; Gonsiorek, Sell, & Weinrich, 1995).

5. Sex: *Webster's New World Dictionary* (Agnes, 2002) defined this term as "the dichotomous distinction between female and male based on physiological characteristics, especially chromosomes and external genitalia" (p. 584). Authors in the field of LGBT research similarly focus on the biological nature of sex as distinct and independent from gender (Bohan, 1996; Chung & Katayama, 1996; Jagose, 1996; Malone, 1998; Namaste, 1996; Pramaggiore, 1996; Rollins & Hirsch, 2003).

6. Gender: This term was defined as "the behavioral, cultural, or psychological traits typically associated with one sex" (p.265) in *Webster's New World Dictionary* (Agnes, 2002). Bohan (1996) further added that gender is "the social consequence of our belief that men and women are and should be different in a wide range of behaviors and experiences" (p.13). The present study incorporated both definitions, considering gender as a set of behaviors and attitudes expected from individuals based upon their biological sex.

7. Male: The definition provided by *The New Oxford American Dictionary* (McKean, 2005) stated that male is defined as "of or denoting the sex that produces small, typically motile gametes, especially spermatozoa, with which a female may be fertilized or inseminated to produce offspring" (p.1025). This definition, focusing on the biological basis of the term, appeared to be largely reiterated in other definitions of this term in the literature, and was as such accepted as the definition to be used in this study.

8. Female: This is another term which seemed to be relatively undisputed in the literature in terms of definition. *The New Oxford American Dictionary* (McKean, 2005) defined this term as "of or denoting the sex that can bear offspring or produce eggs, distinguished biologically by the production of gametes (ova) that can be fertilized by male gametes" (p.618).

9. Transgendered: *The New Oxford American Dictionary* (McKean, 2005) identified this term as "identified with a gender other than the biological one" (p. 1789). Bohan (1996) stressed the distinction between dimensions of sexual orientation and gender affiliation dimensions, which he and other queer theorists maintain are completely independent of one another. For the purposes of the present study, transgendered is considered to be an umbrella term for individuals who blur gender lines, including transsexual, transvestite, cross-dresser, drag queen/king, butch lesbians, or gender bender/queer. This construct will be revisited and expanded upon in chapter two.

10. Queer: This is a single inclusive term referring to "all alternative sexual orientations and identities (lesbian, gay, and bisexual: often it also includes transgender)" (p. 16, Bohan, 1996). This is a generally agreed-upon definition, although its interpretation as a

positive or negative term is highly variable. As discussed in *The New Oxford American Dictionary* (McKean, 2005):

> Queer was originally, and still is, a deliberately offensive and aggressive term when used by heterosexual people. In recent years, however, many gay people have taken the word and deliberately used it in place of gay or homosexual…to deprive it of its negative power. This use of queer is now well established and at present exists alongside the other deliberately offensive use. This use is similar to the way in which a racial epithet may be used in a racial group, but not by outsiders. (p. 1387)

Source	Conceptual Definition	Operational Definition	Measurement
Kinsey, 1948	*None specified*	Overt sexual experience (behavior) and/or psychosexual reactions (attraction and/or fantasies)	The Kinsey Scale
Freud, 1974	The erotic orientation to body shape	Physiological arousal	The Plethysmyograph
Klein, 1985	A multidimensional, multivariable, dynamic process	Sexual attraction, sexual behavior, emotional preference, social preference, self-identification, heterosexual/homosexual lifestyle, and time	The Klein Grid
Coleman, 1987	*None specified*	Current relationship status, global acceptance of current sexual orientation identity, physical identity, gender identity, sex-role identity, sexual orientation identity, behavior, fantasies, emotional attachments, and current, past, and ideal self-identification identity	The Coleman Sexual Orientation Grid
DeCecco, Parker, & Allen, 1995	*None Specified*	Biology factors: genetics and/or prenatal hormonal environment	Finger ridge count (measure of prenatal environment)
Bogaert, 2000	The erotic inclination/attraction for the opposite sex (heterosexuality), the same sex (homosexuality), or both sexes (bisexuality)	Attraction and behavior	Untitled scale with one item each for attraction and behavior dimensions

Continued

Table 1.1. Historical definitions of the construct of sexual orientation by date and author

Table 1.1 Continued

Source	Conceptual Definition	Operational Definition	Measurement
The American Heritage Dictionary of the English Language, 4th Ed., 2000	The direction of one's sexual interest toward members of the same, opposite, or both sexes.	*None specified*	*None specified*
Orenstin, 2001	*None specified*	Sexual preference, affective/cognitive preference, behavioral preference, self identified sexual orientation label, anxiety/fears concerning sexual orientation	Untitled compilation scale with one item corresponding with each dimension of the operational definition
The American Heritage Stedman's Medical Dictionary, 2002	The direction of one's sexual interest toward members of the same, opposite, or both sexes, especially a direction seen to be dictated by physiologic rather than sociologic forces. Replaces sexual preference in most contemporary uses.	*None specified*	*None specified*
Merriam-Webster's Medical Dictionary, 2002	the inclination of an individual with respect to heterosexual, homosexual, and bisexual behavior	*None specified*	*None specified*
Zea, Reisen, & Diaz, 2003	*None specified*	Social context, internalized sociocultural experiences	*None specified*

The following definitions constitute the operational definitions for the construct of sexual orientation which were used in the survey instruments in this study (see Appendices D & E). These working definitions represent the major hypothesized components of sexual orientation in the literature.

11. Sexual Attraction: extent of sexual attractions toward members of the same, other, both sexes, or neither.

12. Behavior: actual sexual behavior as opposed to attraction.

13. Fantasy: sexual reactions based on imagination.

14. Emotional Preference: interpersonal affection, not necessarily sexual behavior. This involves whether someone loves or likes only the opposite sex or whether they are also emotionally close to the same sex.

15. Social preference: closely related to emotional preference, but often different. A person may love only women but spend most of their social life with men. Some people, of all sexual orientations, only socialize with their own sex, while others socialize with the opposite sex exclusively.

16. Sexual Orientation Self-Identification: one's personal "label" of their own sexual orientation, such as "straight," "bisexual," or "gay," regardless of other factors such as sexual behavior or attraction.

17. Current Relationship Status: whether an individual is single, casually dating someone of either sex, or in a committed relationship.

18. Self-Acceptance of Current Sexual Orientation Identity: level of comfort with and acceptance of current sexual orientation identity.

19. Gender Identity: an individual's basic conviction of being male or female, though not contingent upon the individual's biological sex.

20. Sex-Role Identity: adherence to the culturally created behaviors or attitudes deemed appropriate for males and females.

21. Social Context: cultural factors, such as racial or ethnic heritage and beliefs, including beliefs about sexual behavior and sexual orientation.

22. Internalized Sociocultural Experiences Related to Sexual Orientation: individuals may have very different learning experiences related directly or indirectly to sexual orientation. These might include different cultural factors, oppression, discrimination, education, socioeconomic factors, and direct or indirect experiences of homophobia.

23. Biology Factors Related to Sexual Orientation: genetics, evolution, hormones, or other natural factors that might play a role in sexual orientation.

24. Time: change in any of the above dimensions of sexual orientation over time (for example, currently identifying as lesbian, but identifying as bisexual in the past), or the stability of aspects of sexual orientation over time.

Overview of the Chapters

Chapter 1 introduced the statement of the problem, purpose of the study, the importance of the study, and the conceptual basis of the study. Additionally, the research questions of the study were established, and definitions for applicable terms were outlined. The hypotheses for the study were also clarified. Chapter 2 contains literature and research related to the broad topics that contain the definition and measurement of sexual orientation and related topics. These topics include historical context and

emerging theory. Methodology for this study is presented in Chapter 3 and includes the research design, selection of the sample, data collection, and data analysis procedures. Results obtained from this method as well as preliminary discussion of findings are available in Chapter 4. The final chapter, Chapter 5, is a discussion of the study.

CHAPTER 2

LITERATURE REVIEW

Early Measurements and Definitions

The earliest known attempt at constructing a battery of questions to assess sexual orientation was written in the 1590's by a Franciscan monk named Francisco De Pareja in his book, *Confesionario.* The questions were designed to identify Sodomites, which referred to the biblical definition of same-sex sexual behavior. This battery included such items as (for women): *woman with woman, have you acted as if you were a man*? A few centuries later, in the 1860's Karl Heinrich Ulrichs produced a series of pamphlets outlining the questions to be asked in identifying what would later be termed a homosexual man. A sample item includes: *Does he experience a beneficial magnetic current when making contact with a male body in its prime*? (Sell, 1996).

An examination of early definitions of sexual orientation reveals an intimate relationship to the dominant social attitudes of the times. In the 1590's, sexual orientation was viewed through the lens of religion. By the early 1900's the dominant lens had changed to medicine. Deviant sexuality, which had formerly been conceived of in terms of sin, was transformed into serious mental illness. Advancements in statistics

and scale construction resulted in the first empirically-based and normed scales, although these were couched in the pathological models of deviant sexuality. Prior to Kinsey, Pomeroy, and Martin's (1948, 1953) landmark studies, definitions and theoretical models of sexual orientation were couched in the pathologized model of the medical community. Homosexuality was defined as a mental illness in the original Diagnostic and Statistical Manual (American Psychiatric Association, 1952), and was not removed as a disorder until 1973. With the social shift in attitudes towards more accepting and open-minded views of non-heterosexuals, the research involving these populations likewise shifted in terms of the definitions, assumptions, and measurements used to identify and group sexual minority participants in research.

Integral to the social shift in attitudes toward non-heterosexuals was the broader change in the social construction of sexual orientation itself. That part of one's identity concerns the gender of one's preferred sexual and/or life partners is a very recent historical advancement. Prior to the late 1800's there were no such terms as sexual orientation, homosexual, heterosexual, or bisexual, because sexuality was not considered a core part of one's being. Instead of sexual identity there were only sexual acts, which may account for Kinsey's original defining of sexual orientations on the basis of behavior alone. For example, in ancient Greek and Roman cultures a wide variety of same-sex sexual behaviors were fully sanctioned and accepted by society at large. Similarly, many tribal communities currently view homosexual acts as acceptable adolescent behavior prior to marriage. (Eighner, 1995)

The transition from sexual act to sexual orientation represented a major shift in the social construction of sexuality. Not only did this shift result in the creation of viable sexual minority groups, but in the evolution of a rich subculture as well. This metamorphosis is also instructive in understanding early measures and definitions associated with sexual orientation. The earliest measures and definitions, as mentioned above, were almost exclusively behavior-based, with subsequent scales and definitions reflecting and reacting to changing social constructions of sexual orientation over time. Also worthy of mention was the nearly inexorable link between sex roles and sexual orientation within early definitions and inventories. Stereotypically, those who engaged in non-heterosexual acts were largely considered to violate gender norms as well (Eighner, 1995). Some even hypothesized that abnormal sex role behavior (i.e., a woman acting in a masculine way or a man acting in a feminine way) was the cause of such 'sexual aberrant' behavior. The importance given to both gender atypicality and sexual behavior is evidenced in most of the earliest measures and models of sexual orientation.

The first items used to assess homosexuality using modern statistical methodology were constructed as part of the Minnesota Multiphasic Personality Inventory (MMPI) and were normed on prison inmates and patients in mental institutions (Singer, 1970). Based on the simple assumption that femininity in men was among the main identifying criteria of homosexuality, and likewise that the reverse was true of lesbians, the Masculinity/Femininity (Mf) Scale was originally designed for the purpose of clinical assessment and diagnosis of homosexual tendencies (Singer, 1970).

Evidence soon emerged, however, that implicated a strong positive correlation between intelligence and "feminine" Mf scores on the MMPI (Panton, 1960). Panton (1970) developed a new MMPI scale for the specific identification of male homosexuality. He proposed that homosexuality was accounted for by a wide variety of personality factors, many of which were independent of the Mf scale, but captured across MMPI items as a whole. The new homosexuality scale (HSX) was normed on samples of prison inmates from North Carolina penitentiaries. No definitions of homosexuality or heterosexuality were provided in the publication. A "social history of confirmed homosexuality" in a convict's official prison file was sufficient to place men into the homosexual cohort.

By 1970, four major indicators of homosexuality on the MMPI had been developed: the Mf elevation, Mf rank, Aaronson's Masculinity-Femininity Index (MFI), and Panton's HSX. Although used in assessing homosexual tendencies in both males and females, very little reliability or validity data exists for female samples. For example, Michael Singer (1970) performed a cross-validation study of all four scales using only male samples. He did attempt to define his terms, noting the variability in methods of evaluation of homosexuality in past research. The main criterion for (male) homosexuality in Singer's study was overt behavior. An overt homosexual male was defined as self-reporting overt homosexual experiences past the age of 14. Men with expressed homosexual concern comprised another category, defined as reporting no overt homosexual experiences, but expressing extreme fears/concerns, conscious desires, or extensive fantasies and dreams regarding homosexuality. "Nonhomosexual" was defined

as reporting no clear-cut concern or preoccupation with homosexuality or any overt adult homosexual behavior.

The subjects in this analysis were voluntary male patients at a psychiatric outpatient clinic in Buffalo, NY. Each patient was rated independently by three judges – one social worker and two psychologists – who independently placed them into one of the three sexual orientation categories. The four homosexuality scales under investigation were extracted from the intake MMPI in each man's file, and the differences between mean group scores on each scale were compared. Both the MFI and the HSX failed to significantly differentiate any groups. The Mf evaluation scale and the Mf rank scale, however, significantly differentiated both overt and concerned homosexual groups from the nonhomosexuals, but not from each other. (Singer, 1970)

In an attempt to differentiate the overt and expressed homosexual concern groups, Singer investigated Renaud's (1950) proposal that scales 3 (Hy) and 4 (Pd) of the MMPI can be predictive of expressed homosexual behavior. A chi-square test indicated significant difference scores between the scales for each subject and a significant difference between groups. The overt homosexual group had more elevated Pd scores, which, Singer argues is indicative of the "impulsive, action-oriented, antisocial" tendencies that lead to expressed homosexuality. Alternatively, he argued the higher Hy scores in the expressed concern group are consistent with the "repressive and denying defenses" that characterize overt homosexual behavior and result in fear and guilt.

In a 1971 study, Ray Evans conducted a validation study on two additional inventories used to identify homosexuality in men: Gough's (1952) Adjective Check List

(ACL) scores, as well as Heilbrun's (1968) Masculinity-Femininity (M-F) scale. Evans used non-prison and non-psychiatric populations to avoid sampling bias, but did not provide definitions for any of the constructs under investigation. Forty-four homosexual men from a Los Angeles homosexual law-reform and education organization and 111 presumed heterosexual men participated in the study.

Significant differences between the groups were indicated by *t*-tests on 12 of the 24 ACL scales. The non-significant scales included an ACL Heterosexuality scale. A new homosexual scale was proposed, constructed from the 78 out of 300 total ACL adjectives that, with chi-square corrections for continuity, had differentiated the groups. However, the author also reports substantially high interscale correlations between a number of the original scales, calling the independence of these scales into question. Additional research was cited that called the validity of the ACL scales into question.

The mean scores for the male homosexual group on the M-F scale were significantly lower (more feminine) than for the heterosexual group, although the overlap is considerable and not practically significant. The average homosexual gave three more "feminine" typed responses than the average heterosexual.

Pierce (1972) hypothesized that men who engaged in homosexual behavior only in conditions of opposite-sex deprivation (i.e., prison and institutional settings) have significantly different personality traits than men who actively pursue homosexual behavior regardless of opposite-sex opportunities. He found support for this hypothesis in an earlier study using Panton's HSX scale to significantly differentiate men in these two types of circumstances. In his 1973 follow-up study, he defined his constructs with

two terms: active and passive homosexuality. Active homosexuality he defined as active and essentially exclusive homosexual histories which predated incarceration. Situational homosexuals were defined as subjects with histories of homosexual activity in the institution but evidence that preinstitutional histories were actively heterosexual and contraindicative of homosexuality. Panton's methods of blocking these subjects into the two categories were vague, and a theoretical basis for his sexual orientation definitions was not described.

Significant differences between the mean HSX scores of the two groups were indicated by *t*-tests. Furthermore, the relative stability of these scores was demonstrated using a product-moment correlation coefficient, which estimated a significant correlation (.84, $p<.001$) between inmate's initial and one-year HSX scores.

Pierce also examined a few nontest correlates in this study, though he warned that any differences are merely suggestive. He compared the AH and SH groups on physical development, manifestations of sexuality, self-reported arousal level to male and female stimuli, and the nature of the crimes resulting in their imprisonment. Pierce (1973) noted that the active homosexuals were "physically less mature, being small and slight or softer and less muscular" than the situational homosexual group (p.25). They reported sexual arousal to male stimuli almost exclusively, were more promiscuous and "flamboyant" in their sexual activity, and were disproportionately incarcerated for crimes involving physical assault. (Pierce, 1973)

Modern Models, Inventories, and Definitions

Beginning in the late 1970's and early 1980's, the medical pathological view of sexual orientations divergent from the heterosexual norm eroded rapidly. This change in the political climate came in conjunction with the formation and solidification of the Gay Rights Movement. The change was also reflected in the decision to remove homosexuality and bisexuality from the official list of clinical disorders in the DSM-III (American Psychiatric Association, 1980). As the social construction of sexual orientation changed within the community at large, the realm of research and academic communities also began to reflect these new conceptualizations. Dynamic, multivariable models and definitions of sexual orientation started to gain popularity during this time. Likewise, new scales and inventories began to reflect these new conceptualizations.

A number of sexual orientation models have been proposed over the years, but the definitions and theoretical conceptualization behind these models has varied tremendously. Alfred Kinsey established the benchmark two-dimensional continuum model of sexual orientation in 1948, in which he rejected the dichotomous conceptualization of sexual orientation (as either heterosexual or homosexual) with his landmark 1948 study on male sexuality. The dimension, "overt sexual experience," or behavior, was the criterion used in placing an individual on the seven-point Kinsey Scale. As discussed in the previous chapter, Bell and Weinberg (1978) found support for a second dimension, "psychosexual reactions." The Revised Kinsey Scale, which is now the standard Kinsey Scale used in practice, incorporates both behavioral and psychosexual reaction dimensions. Shively and DeCecco (1977) proposed a third

dimension, interpersonal, which introduced the component of emotional preference. Klein (1978; 1980; 1990) and Klein, Sepekoff and Wolf (1985) further expanded on this model, adding an additional four dimensions: sexual attraction, social preference, self identification, and heterosexual/homosexual lifestyle preference. Klein also introduced the factor of time, arguing that sexual orientation is neither fixed nor permanent, and should be assessed in terms of past, present, and ideal (future) contexts. (Klein et al., 1985).

Klein et al. (1985) was among the first to attempt the creation of an empirically reliable and valid research tool that takes into consideration the multivariable and dynamic aspects of sexual orientation. His model , the Klein Sexual Orientation Grid (KSOG) introduced a scale composed of 7 dimensions of sexual orientation (i.e., sexual attraction, sexual behavior, sexual fantasies, emotional preference, social preference, self-identification, and heterosexual/homosexual lifestyle), each of which was rated by study participants as applying to the present, past, or ideal. Klein used three self-identified groups (heterosexual, homosexual, and bisexual) to analyze the KSOG. Analysis of the 350+ subjects supported the validity and reliability of the data (in comparison to self reported sexual orientation). The data also suggested that the sexual orientation of the subjects often changed remarkably over their adult lives, and that all groups became significantly more homosexually-oriented over time.

Weinrich (1993) was the only researcher to independently analyze any of the modern sexuality scales for men. He conducted a factor analysis of Klein's Sexual Orientation Grid (KSOG; Klein, 1985). Subjects were 31 heterosexual, 30 bisexual, and

29 homosexual men who responded to an advertisement for a study of fat metabolism and 78 homosexual and bisexual men who were enrolled in an AIDS research center. The first factor to emerge loaded substantially on all of the items and accounted for a majority of the variance. A second correlated factor indexed a separation between most of the items and those having to do with social and/or emotional preferences. A third correlated factor also emerged, but this factor differed between the two populations. In the AIDS research center population, this factor seemed to distinguish social and emotional preferences. In the other sample (solicited from an advertisement for a fat metabolism study) the third factor seemed to distinguish ideal behavior from past and current behavior. The implications of this research are limited due to the fairly small sample sizes of the groups used in the study. In addition, Weinrich did not provide definitions for any of the terms or constructs involved in this study.

Coleman (1987) further challenged the previous two-dimensional models by proposing a sexual orientation assessment model that included nine dimensions: current relationship status; current and ideal self-identification identity; global acceptance of current sexual orientation identity, physical identity, gender identity, sex-role identity, and sexual orientation identity as measured by behavior, fantasies, and emotional attachments; and past and present perception of sexual identity compared to the idealized future. A problem with this scale is that many of the items are qualitative in design, rendering empirical validation and comparison studies difficult to perform. Validity in this case was assessed by comparing composite scores to Kinsey ratings.

Another notable author in this area is Dube (2000), who set out to create and investigate two developmental models of sexual orientation in men. The first model he identified as "sex-centered" development, whereby men engage in same-sex relations before deciding on, understanding, or labeling their own sexual orientation. In contrast, men who follow an "identity-centered" developmental sequence identify their sexual orientation before ever engaging in same-sex relations. Dube's hypothesis was that these developmental models are tied to the cultural climate in which men grow up, and are thus age-bound. Younger men are more likely to have grown up in relatively more accepting environments than older men, so Dube hypothesized that younger age would correlate more strongly with an identity-centered developmental sequence. Younger men, in other words, would not have to engage in same-sex physical relations before understanding their orientation as homosexual. He also hypothesized that men who came to identify as homosexual in a sex-centered sequence would exhibit more dysfunctional levels of adjustment to sexual identity (i.e., internalized homophobia, disclosure patterns), as well as differential patterns of heterosexual relationship involvement and same-sex behavioral involvement. He did not, however, provide definitions for homosexuality, heterosexuality, bisexuality, or sexual orientation. The participants' current sexual orientation was measured using a Kinsey-style one-item scale simply asking which of seven labels they currently identified with the most, from completely heterosexual, to completely homosexual. Similar to previous studies, a major limitation of this research was that Dube failed to investigate the generalizability of his model to women. As male

and female data were not used in developing this scale, Dube was unable to report on convergence or factors of sex-related differences.

The Kinsey Scale was used as the criterion in assessing validity for this scale. A Mann-Whitney U test indicated that the men in each developmental sequence group did not differ in their Kinsey ratings. A chi-square test demonstrated that the sequence groups did differ significantly by age cohort. There was also a significant difference between sequence groups in levels of heterosexual relationships and sexual involvement, as well as internalized homophobia, which supported Dube's hypotheses. Men whose sexual identity development adhered to a sex-centered sequence showed more heterosexual relationships and sexual involvement, and also reported greater internalized homophobia than men who reported an identity-centered sequence of homosexual identity development.

One notable study in which female sexuality alone was investigated was conducted by Hall (2000). Hall (2000) conducted a study which measured sexual orientation against a measure of prenatal environment (finger ridge count) in female twins. She used the Kinsey scale as well as the Klein Grid (1985) as measures of sexual orientation in the twin participants. A Wilcoxon Rank Sum Analysis was performed, and a significant difference was indicated between prenatal environment and sexual orientation. No definitions of sexual orientation or related terms were provided, however, and no comparison analyses between the Klein Sexual Orientation Grid and Kinsey Scale were reported. Although the same methodological problems discussed above were similarly present in Hall's (2000) study, the research contributed the proposal

of a possible genetic component in the construct of sexual orientation. Genetics, or a biologically-based predisposition towards one type of sexual orientation over another is therefore included in the present study as a possible component of sexual orientation that has been proposed within the field.

Horowitz, Weis, and Laflin (2001) set out to investigate lifestyle, social, and health behavior differences based on sexual orientation in men and women. Data from several years of the National Opinion Research Center General Survey were used as the data in this study. The items of interest measured sexual behavior (used to group participants into sexual orientation behavior groups), social background, quality of life, and health behavior. Horowitz, Weis, and Laflin were unable to find any significant differences between groups on these factors. The authors implied a behavioral operational definition of sexual orientation, but provided no specific definitions for the constructs under investigation.

The trend in modern sexuality research has been to ignore the problematic issue of general operational definitions of sexuality terms such as "heterosexual," "homosexual," or "bisexual." In the literature search for the present study, only one author could be found who provided explicit definitions of these terms. Bogaert (2000) asserted the following operational definition of sexual orientation: "the erotic inclination or attraction for the opposite sex (heterosexuality), the same sex (homosexuality), or both sexes (bisexuality)" (p. 361). Bogaert reported these definitions in conjunction with a larger study, in which he empirically compared two measures of sexual orientation for validity. One measure, extracted from a published interview protocol, used a 5-point

attraction scale: “In general, are you sexually attracted to only men, mostly men, both men and women, mostly women, or only women?” where 1 = *Only men*, 2 = *Mostly men*, 3 = *Both men and women*, 4 = *Mostly women*, 5 = *Only women* (Laumann et al., 1994). The other scale used behavior as the criterion, and consisted of a single item: “Have your sex partners in the last 5 years been: 1 = *Only men*, 2 = *Mostly men*, 3 = *Both men and women*, 4 = *Mostly women*, 5 = *Only women*. While these measures were significantly correlated in both men and women using Spearman’s Rank correlation, no other measures were used as comparison scales for validity or reliability in this study (Bogaert, 2000).

The only study thus far to tackle the issue of the social construction of sexual orientation was conducted for a dissertation in linguistics (Neighbors, 2000). The purpose of this study was to investigate the semantics of various category labels of sexual orientation that are used in the ordinary language community. Neighbors incorporated only three hypothesized components of sexual orientation in this study, overt sexual behavior, sexual attraction, and sexual fantasy. These three components were treated as stimulus conditions along with sex and sex of sexual partner in a 2 x 2 x 2 x 2 factorial design. The survey materials consisted of vignettes about hypothetical situations and individuals involving either same-sex or opposite-sex behaviors, attractions, or fantasies. Participants in this study were instructed to indicate a one-word description of the hypothetical subject of each vignette. Overall, sexual attraction was the strongest predictor for categorizing sexual orientation, followed by overt sexual behavior and finally sexual fantasy. When the sex of the subject of each vignette was taken into

consideration, results indicated that sexual fantasies were the most predictive component in predicting sexual orientation in vignettes involving females, whereas sexual attraction was the most significant predictor for males.

A recent content analysis of 144 studies in the *Journal of Homosexuality* analyzed research and data from 1974-1993 (Volumes 1-24). The results of the content analysis suggested that in approximately one-third of the studies, participants' sexual orientations were assumed rather than assessed (Chung & Katayama,1996). Five methods for the assessment of sexual orientation were identified, with self-identification being the most typical. The other categories of sexual orientation assessment noted in this study were sexual preference (indicated by physical attraction), behavior, single dimension (e.g. the Kinsey scale or similar bipolar scale), or multiple dimensions (e.g., the Klein Scale or other multidimensional instrument). This report illustrated the basic confusion surrounding sexual orientation as a concept and as an independent variable in research. It also underscores the gaping hole that exists in the knowledge of sexual orientation today.

Emerging Theory: Sexual Orientation and Queer Theory

In each of the models discussed above, the implicit assumption is made that sexual orientation categories are for the most part stable, measurable entities. Even Klien (1985), who added the dimension of time to his model, maintained that while sexual orientation and related attributes may change throughout a person's lifespan, that these are measurable fixed entities at any *one* time. Challenges to this assumption have formed the foundation of an important emerging theoretical perspective known as queer theory.

The term *queer,* as defined in chapter 1, may be defined as a single inclusive term representing lesbian, gay, bisexual and transgendered, which encompasses varying degrees of gender nonconformity with one's biological sex (Bohan, 1996; Jagose, 1996). The discourse of queer theory has focused broadly on three major tenets. The first and most widely debated is the conceptualization of sexual orientation and gender identity as fluid, non-fixed entities (Jagose, 1996; Pramaggiore, 1996). It is well established that people's actual behaviors, attractions, and fantasies do not uniformly conform to the strict labels of 'heterosexual' or 'homosexual' (Bohan, 1996; Kinsey, Pomeroy, & Martin, 1948, 1953; Klien, 1996). Likewise, many women perform behaviors characteristic of 'masculinity,' and many men also cross this line into 'feminine' behavior (Jagose, 1996). Resistance to categorization has become a hallmark of queer theory, in which labels such as gay, lesbian, bisexual, female, and male are largely rejected as mechanisms of social marginalization (Rollins & Hirsch, 2003).

A second tenet of queer theory is that of a social constructionist stance toward sexual orientation and gender. Social constructivism refers to an entity or quality that has been defined by society or social consensus to mean something broader or different from its component parts (Namaste, 1996). For instance, a 'man' in the strictest sense is comprised of a certain anatomical and genetic make up. In Western culture, however, many other meanings are associated with the construct of 'man,' such as strength, power, provider, and father. In another culture, 'man' may also mean religious warrior or master of the household. Both meanings of the word 'man' would be technically correct in either culture, because both meanings are socially constructed in each cultural setting.

Many queer theorists maintain that both gender and sexual orientation are entities that are socially constructed (Jagose, 1996; Malone, 1998; Namaste, 1996, Pramaggiore, 1996). Genetic and behavioral variations, in this view, are defined culturally as something other than what actually is 'natural,' although many people within a society think of such definitions as so intrinsic as to be natural. This represents a problem for those whose behavior falls beyond the definitional range of the social construct. Many queer theorists argue that the social construction of only two sexes and arguably only three sexual orientations is marginalizing, oppressive, and unwarranted (Jagose, 1996; Malone, 1998; Namaste, 1996, Pramaggiore, 1996;). The final major tenet of queer theory addresses what many argue to be a good solution for this problem: Deconstructionism.

Queer theorists typically favor a deconstructionist stance toward categories and labels associated with sexual orientation and gender, arguing that such labels are restrictive and limiting (Malone, 1998; Rollins & Hirsch, 2003) Breaking down categories of sexual orientation and gender may involve expansion of current definitions to allow for more fluid expression of individual identity (Malone, 1998). Consciousness-raising of the true diversity associated with gender and sexuality expression has been one of the main contributions to arise from queer theory thus far (Malone, 1998).

Critics have largely dismissed queer theory as beyond the realm of academic or scientific investigation. Rollins and Hirsch (2003) described a fundamental problem in empirically examining the hypotheses of queer theory. These authors argue that disproving a concept that is socially constructed is challenging, particularly when most samples within the culture are likely to endorse and uphold those concepts. For example,

how might a researcher empirically determine that gender and sexual orientation do not actually exist, particularly when most participants in any study would believe these entities to exist? Overall, it is the very basis of queer theory that renders it so difficult to incorporate into mainstream research. In her discussion of queer theory in modern research, Namaste (1996) also pointed out that while many queer theorists challenge category limits of terms such as straight, homosexual, and bisexual, the theoretical approach still assumes queer to be a static identity. That the queer identity is assumed to be fixed and stable while others are not represents a major inconsistency in queer theory. Further criticism of queer theory was presented by Rollins and Hirsch (2003) in the area of political and legal agendas. They argue that queer theory poses a fundamental threat to the political movement for same-sex rights by challenging the veracity of non-heterosexuals as legitimate minority groups. One of the gay rights movement's most powerful arguments has been that LGBT individuals form a viable minority group that deserves the same legal protections against prejudice and discrimination as any other minority group. Queer theory undermines this argument by suggesting a plurality of sexual orientations that are neither fixed nor stable. In effect, this philosophy is argued to challenge the viability of the LGBT community as a stable minority identity.

To move beyond the conflict in theoretical goals between LGBT and queer theorists as outlined above, Namaste (1996) suggested that the component of context ought to be considered. Namaste (1996) argued that the only dynamic aspect of sexual orientation is the context in which it is socially constructed. As such, Namaste (1996) recommended a social semiotic approach to sexual orientation and gender study.

Semiotics, as defined by Namaste (1996), refers to "the ways in which meaning is generated and interpreted" (p. 71).

The present study takes the above discourse in queer theory into consideration by addressing the social construction of sexual orientation as well as social context. In examining the possible differences in definitions of sexual orientation among differing communities (i.e., heterosexual, non-heterosexual, academic), the present study could be considered a social semiotic inquiry of sexual orientation in that it investigates the interpretation of sexual orientation within dynamic social contexts.

Summary and Rationale

A number of models designed to assign individuals to sexual orientation categories for research purposes have been proposed over the years, but the designs of these measurements have varied tremendously. Early measurements were based on the Minnesota Multiphasic Personality Inventory (MMPI) and other clinical inventories (Gough, 1952; Panton, 1960; Pierce, 1972; Singer, 1970). Kinsey published the benchmark 7-point Kinsey Scale of normative sexuality in 1948, but never performed reliability or validity analyses on this measurement. Subsequent authors have produced a number of multi-item, multi-dimensional inventories to assess sexual orientation, including the 21-item Klein Grid (1985), and the Sell Assessment of Sexual Orientation (1996). However, the use of methodologically sound techniques to ensure validity and reliability in the creation of these scales has been questionable, at best, and largely absent from the majority (Chung & Katayama, 1996; Sell, 1996; Sell, 1997). Only one of these

measurements – the Klein Grid (1985) – has ever been empirically analyzed for validity (Weinrich, 1993).

Based on the available research regarding sexual orientation and its operational definition and measurement, an examination of the validity of existing methodology is warranted. The lifestyle choices and legal rights of non-heterosexual adults are increasingly important in socio-political debate and controversy in Western society. With the coinciding increase in research involving non-heterosexual individuals, the need has arisen to strengthen that research by validating and standardizing the operational definition of terms and constructs. The postulated dimensions of sexual orientation proposed by Kinsey (1948; 1951), Klein (1985), Sell (1996), and others (Bowman, 2000; Coleman, 1987; Dube, 2000; Johnston & Bell, 1995) have never been empirically investigated for construct validity in conjunction with a common data set.

Further analysis in the area of conceptualizing sexual orientation for research purposes is clearly necessary. Without a common conceptualization of what sexual orientation is, and without clearly operationalized measurements to group people into cohorts consistently across studies, the body of literature concerning sexual orientation research and issues will remain fragmented and inconsistent.

Accordingly, the purpose of the present study was to examine several published components of sexual orientation for construct validity. The investigation of these components was intended to provide improved understanding of the construct of sexual orientation in different populations that will strengthen research on important sexuality and sexual orientation issues. The analysis was performed on the constructs published in

the Revised Kinsey Scale (1995), the Sell Assessment of Sexual Orientation (1996), the Klein Sexual Orientation Grid (1985), the Coleman Assessment of Sexual Orientation (1987), as well as several others endorsed by noted authors in the field (DeCecco, Parker, & Allen, 1995; Madson, 2001; Shively & DeCecco, 1977; Zea, Reisen, & Diaz, 2003). Attitudes toward each dimension of sexual orientation were compared, and the importance of each dimension was assessed. Potential differences in attitudes based on sexual orientation, sex, and community affiliation differences were also investigated.

CHAPTER 3

METHOD

The primary purpose of this study was to examine sexual orientation constructs as proposed in the academic community for construct validity among laypersons in heterosexual and non-heterosexual communities. A secondary purpose was to determine whether variables of participants' sexual orientation and/or community affiliation (academic or layperson) predicted endorsements of certain sexual orientation components over others. A third purpose was to examine participants' self-identified sexual orientation labels for comparability against participants' expanded sexual orientation profiles, as reported in the Identity Scale. Lastly, the relationship of other demographic variables such as sex, ethnicity, and education level were examined in relation to importance ratings of sexual orientation components.

This chapter highlights the methods used for obtaining and analyzing data for the study. Specifically, the chapter is divided into the following: (a) participants and sampling methodology, (b) construction of instruments, (c) pilot study, (d) final instruments, (e) data collection procedure, (f) analysis of data, and (g) summary.

Participants and Sampling Methodology

Participants were 446 individuals recruited from academic and community samples. The methodology for recruiting each cohort is described below. Participants were eligible for the study if they were over 18 years of age and if they were proficient in English. Of the total sample, 227 (50.2%) participants were female, 216 (47.7%) were male, and 9 (2%) identified as transgender. Participants' ages ranged from 18 to 71, with a mean age of 25.2. Ethnicity within the full sample was identified as follows: 364 (80.5%) Caucasian; 23 (5.1%) African-American, 20 (4.4%) Latino/Latina; 33 (7.3%) Asian or Pacific Islander; 9 (2%) biracial; 3 (.7%) Native American.

Three distinct methods were utilized in recruiting heterosexual and non-heterosexual laypersons and academic participants.

Academic cohort. The first method involved participants comprising the academic cohort. These individuals were solicited directly via an email solicitation letter (see Appendix B). Inclusion criteria for the academic cohort were as follows:

1. One or more publications on the topic of sexual orientation, as identified through review of the literature using PsychInfo, an on-line database for psychological research.
2. Notable research conducted in the area of sexual orientation but not yet published, as in the case of graduate school colleagues performing studies in this area as part of Master's or Doctoral degree work.

3. Significant scholarship in the area of human sexuality, sexual orientation, or queer theory, such as university-level instructors of human sexuality or queer theory. This criteria was again used in recruiting known colleagues in this area.

Approximately 70 individuals fitting the above criteria were solicited, of which 20 (29%) responded. Of this sample, 10 (52.6%) identified as female, 9 (47.4%) as male, and one chose not to specify. Three (15%) of the participants identified as heterosexual, 1 (5%) as identified as bisexual, and 16 (80%) identified as homosexual. The ethnicity distribution of this cohort was as follows: 18 (94.7%) Caucasian; 1 (5.3%) biracial; 1 unspecified. Participants' age within this cohort ranged from 20 to 71, with a mean age of 38.1.

Heterosexual cohort. The second method of recruitment involved heterosexual participants who were undergraduate college students enrolled in an introductory psychology course at a large Midwestern university. Students were recruited through a university research experience website which described the general nature of the study, and students completed the research instruments on-line. Attempts were made to recruit equal numbers of males and females. Participation in the study was voluntary, although the students received course credit for their involvement.

A total of 198 participants comprised this cohort, of which 104 (52.5%) identified as female and 94 (47.5%) identified as male. The age of this cohort ranged from 18 to 32, with a mean age of 19.84. The ethnicity distribution of this cohort was as follows: 153 (77.3%) Caucasian; 21 (10.6%) Asian/Pacific Islander; 18 (9.1%) African American; 5 (2.5%) Latino/Hispanic; 1 (.5%) biracial. As the purpose of this recruitment was to

obtain heterosexual participants, students who identified as LGBT were counted as part of the LGBT cohort. Therefore, in terms of sexual orientation within the university student cohort, 198 (100%) identified as heterosexual.

LGBT cohort. Finally, additional LGBT participants were recruited through an email solicitation advertising the study, which was sent to approximately 30 college-based LGBT list serves. The solicitation was also posted on several popular national LGBT community websites, such as Out in America, Planet Out, and Gay.com. Participation was again voluntary, and all instruments were completed through the same on-line format as the heterosexual and academic cohorts. Participants from the LGBT cohort were not offered the same incentive as the heterosexual cohort (i.e. course credit) so an additional incentive was created. It has been suggested that possible monetary incentive may increase the response rate of on-line research participants (Cohen & Tannenbaum, 2001). In an effort to equalize incentives in the cohort groups, a monetary prize drawing was offered to all those who completed the survey. For those who completed the study and who opted to separately submit an email address, two prizes of $50 each were awarded. The recipients of these funds were selected randomly from those who completed the survey and who chose to enter the raffle. Registry into the drawing was optional, and data from entry into the drawing was collected separately from the survey data. E-mail data were similarly not linked to demographic information about participants, or to item responses.

This cohort consisted of 235 individuals of which 113 (48.1 %) identified as female, 113 (48.1%) as male, and 9 (3.8%) as transgender. The age distribution of this

cohort ranged from 18 to 67, with a mean age of 28.2. The sexual orientation labels identified by this cohort were as follows: 6 (2.6%) heterosexual; 47 (20%) bisexual; 182 (77.4%) homosexual. The 6 participants identifying as heterosexual were included in this cohort because they also identified as transgender. The ethnicity distribution of this cohort was as follows: 193 (82.1%) Caucasian; 5 (2.1%) African American; 12 (5.1%) Asian/Pacific Islander; 15 (6.4%) Latino/Hispanic; 3 (1.3%) Native American; 7 (3%) biracial.

Construction of Instruments

The measures administered to participants given in the following fixed order:

1. Demographic questionnaire
2. Attitudes Toward Components of Sexual Orientation Scale (ATCSOS), developed for use in the present study.
3. Personal Identification Toward Components of Sexual Orientation (PITCSO), also developed for use in the present study.

Demographic Questionnaire. A brief questionnaire requesting age, sex, ethnicity, education level, and self-identified sexual orientation label was administered to all participants (see Appendix H).

Attitudes towards Components of Sexual Orientation Scale. The Attitudes Towards Components of Sexual Orientation Scale (ATCSOS) was developed to address the central purpose of the investigation, in examining the social construction of sexual orientation among different cohorts. This scale was developed for this study using major components proposed by noted theorists and researchers to be important in

conceptualizing and operationalizing sexual orientation. The instrument included 14 components: (a) Behavior, (b) Sexual Attraction, (c) Fantasy, (d) Emotional Preference, (e) Social Preference, (f) Sexual Orientation Self-Identification, (g) Current Relationship Status, (h) Self-Acceptance of Current Sexual Orientation Identity, (i) Gender Identity, (j) Sex-Role Identity, (k) Social Context, (l) Internalized Sociocultural Experiences, (m) Biology, and (n) Time (See Appendix D, as well as Chapter 1 for definitions of these terms). As discussed in depth in Chapters 1 and 2, these components were included in this scale because each was proposed by either researchers or scholars in the field to be important in conceptualizing sexual orientation. To verify face and content validity of this scale, formal and informal consultations were conducted with academic colleagues and members of heterosexual and LGBT communities. The purpose of these consultations was to verify that the components included in this study were exhaustive and discrete in the social construction and operationalization of sexual orientation. Formal and informal feedback supported the use of the 14 components listed above, and did not suggest inclusion of any additional constructs. Reliability and other psychometrics were initially explored using a pilot sample, the results of which are presented below.

In completing this instrument, participants were instructed to rate each component on a 7-point Likert-like scale from *not at all important* to *very important* in defining one's sexual orientation. Specifically, the directions stated: "Please rate how important you believe each dimension is in defining a person's sexual orientation." A typical item to be rated in this scale is "Emotional Preference: interpersonal affection, not necessarily

sexual behavior. This involves whether someone loves or likes only the opposite sex or whether they are also emotionally close to the same sex." (See Appendix D).

Personal Identification Toward Components of Sexual Orientation Scale. The Personal Identification Toward Components of Sexual Orientation (PITCSOS) was developed to establish theoretical continuity and comparison with previous explorations of sexual orientation components. Prior investigations of various definitional components of sexual orientation have traditionally involved participants' personal identification with each component. For example, Klein's (1985) proposed components of sexual orientation (i.e., sexual attraction, sexual behavior, sexual fantasies, emotional preference, social preference, self-identification, lifestyle, and time) were tested by asking participants to rate themselves on each component using a Kinsey-like seven-point rating scale from *exclusively heterosexual* to *exclusively homosexual*. While this technique may have illustrated certain characteristics related to individuals' sexual orientation, it shed no light on how important each of these characteristics was in defining or assessing sexual orientation itself. Therefore, the ATCSOS consisted of items which assess attitudes toward sexual orientation components in defining sexual orientation, while the PITCSOS incorporated traditional methodology in assigning personal identification values with these components.

The PITCSOS included seven components with 21 items that assessed participants' own sexual orientation with regard to the following components (a) Sexual Attraction, (b) Behavior, (c) Fantasy, (d) Emotional Preference, (e) Social Preference, (f) Self-Identification, and (g) Current Relationship Status. Six of the 14 sexual orientation

components investigated in the ATCSOS were not included in the PITCSOS because they could not be rated logically using the Kinsey Scale rating system of preference. For example, it would not make sense to rate one's gender identity on a scale ranging from *exclusively homosexual* to *exclusively heterosexual,* as gender identity is neither homosexual nor heterosexual. Likewise, other components that were incompatible with the Kinsey Scale rating system included participants' Biology, Social Context, Internalized Sociocultural Experiences, Sex-Role Identity, and Self-Acceptance of Current Sexual Orientation Identity. The dimension of time was adapted to the PITCSOS by expanding each item to include Past, Present, and Ideal (Future) ratings for each individual sexual orientation component. For example, participants were instructed to rank their personal Sexual Behavior on the Kinsey Scale using three different items, one inquiring as to Present, one to Past, and one to Future (Ideal) Sexual Behavior (see Appendix E).

Each component was rated for personal applicability to each participant using a 7-point Kinsey-like rating scale from 1 = *exclusively heterosexual* to 7 = *exclusively homosexual*. For example, in answering the Social Preference item, if the participant's social companions are *exclusively* of the same sex, then the participant could indicate a response of "*7 – exclusively homosexual*" for this item. Specifically, instructions for the subscale stated:

> Please rate YOURSELF on the same dimensions as the previous page, using the following scale:
>
> 1 = Exclusively heterosexual

2 = Predominantly heterosexual but incidentally homosexual

3 = Predominantly heterosexual but more than incidentally homosexual

4 = Equally heterosexual and homosexual

5 = Predominantly homosexual but more than incidentally heterosexual

6 = Predominantly homosexual but only incidentally heterosexual

7 = Exclusively homosexual

(Appendix E)

An example of a typical item to be rated in this subscale is as follows:

Sexual Attraction: extent of sexual attractions toward members of the same, other, both sexes, or neither.

(Appendix E)

Pilot study

Initially, a pilot study was conducted to investigate the validity and reliability of the scale construction and methodology of the ATCSOS and the PITCSOS. Basic item-total correlations, Cronbach's alpha, and factor analyses were used to analyze the pilot data using SPSS software. Subjects for the pilot study consisted of 85 students enrolled in an introductory psychology course at a large Midwestern university. Recruiting materials and procedures were identical to those described in the above Participants section for heterosexual cohort. Participants in the pilot study were 82 students ranging in age from 18 to 29, with a mean age of 19.5. Within the sample, 45 participants (53.6%) identified as female, 39 (46.4%) identified as male, and none identified as transgender. Ethnicity within this sample was as follows: 69 (82.1%) Caucasian; 7

(8.5%) African-American, 2 (2.4%) Latino/Latina; 2 (2.4%) Asian or Pacific Islander; 2 (2.4%) biracial.

Reliability may be defined as a measure of a scale's consistency over time, and may be indicated by item-total correlations and coefficient alphas (Walsh & Betz, 2001). Both the ATCSOS and PITCSOS showed strong reliability. Walsh and Betz (2001) suggested .70 as the minimum acceptable alpha to be considered acceptable for psychological research. The pilot data in this study showed acceptable Cronbach's alpha scores of .98 for the PITCSOS (see Table 3.1), and .78 for the ATCSOS (see Table 3.2).

Validity may be defined as how accurately a scale measures the construct it is intended to measure (Walsh & Betz, 2001). The primary modes of verifying validity in psychological research are through correlational analysis and expert or participant opinion or focus groups (Walsh & Betz, 2001). As detailed in Table 3.3, the PITCSOS showed good validity in that each item correlated significantly with self-reported sexual orientation labels, as reported in the Demographics questionnaire. Specifically, each item from the PITCSOS correlated positively and significantly with sexual orientation label at the .05 level or below. For the ATCSOS, direct analysis of validity was not as easily computed. As illustrated in Table 3.4, scale items were correlated to sexual orientation label in the same way the PITCSOS was analyzed, with only one significant correlation, that of fantasy to sexual orientation label ($r = .26$, $t = .02$). These results suggested that participants' self-reported sexual orientation was only significantly related to their opinion of how important fantasy is in defining sexual orientation. Although no research has currently investigated a possible correlation of sexual orientation to variations in

fantasy, further research may address the issue. Perhaps the subjective nature of fantasy renders it too personal of a concept to be treated objectively, relative to behavior or relationship status, for example. This might also be a spurious correlation. Overall, except in the case of fantasy, the non-significant results of this analysis were expected. Unlike the PITCSOS, the items on the ATCSOS were not designed to measure the same construct, that of sexual orientation. Instead, these items were intended to investigate the importance of components in defining sexual orientation. As such, participant responses to the ATCSOS reflected higher variance and less inter-item correlation. Validity for the ATCSOS was therefore based on the literature, as well as formal and informal feedback from academicians and members of the heterosexual and non-heterosexual community at large.

Item	Item-Total Correlation	Alpha if Deleted
Sexual Attraction Present	.95	.98
Sexual Attraction Past	.95	.98
Sexual Attraction Future	.96	.98
Behavior Present	.97	.98
Behavior Past	.88	.98
Behavior Future	.97	.98
Fantasy Present	.94	.98
Fantasy Past	.95	.98
Fantasy Future	.95	.98
Emotional Pref. Present	.93	.98
Emotional Pref. Past	.91	.98
Emotional Pref. Future	.93	.98
Social Pref. Present	.69	.99
Social Pref. Past	.65	.99
Social Pref. Future	.75	.99
Self-Identification Present	.96	.98
Self-Identification Past	.87	.98
Self-Identification Future	.97	.98

Continued

Table 3.1. Reliability for PITCSOS Pilot Data; Overall Cronbach's Alpha = .98 (N = 85)

Table 3.1 Continued

Item	Item-Total Correlation	Alpha if Deleted
Relationship Status Present	.95	.98
Relationship Status Past	.83	.98
Relationship Status Future	.97	.98

Note. PITCSOS = Personal Identification Toward Sexual Orientation Components Scale

Item	Item-Total Correlation	Alpha if Deleted
Sexual Attraction	.27	.78
Behavior	.34	.77
Fantasy	.29	.77
Emotional Preference	.23	.78
Social Preference	.27	.78
Self-Identification	.36	.77
Relationship Status	.41	.77
Sexual Orientation Identity Acceptance	.47	.76
Gender Identity	.52	.76
Sex Role Identity	.63	.75
Social Context	.58	.75
Sociocultural Experiences	.48	.76
Biological Factors	.30	.78
Time Factors	.45	.76

Note. ATCSOS = Attitudes Toward Sexual Orientation Components Scale.

Table 3.2. Pilot Reliability Data for ATCSOS; Overall Cronbach's Alpha = .78 (N = 85)

Item	Pearson Correlation	Significance (2-tailed)
Sexual Attraction Present	.44**	.00
Sexual Attraction Past	.25*	.02
Sexual Attraction Future	.50**	.00
Behavior Present	.36**	.00
Behavior Past	.23*	.04
Behavior Future	.43**	.00
Fantasy Present	.47**	.00
Fantasy Past	.36**	.00
Fantasy Future	.51**	.00
Emotional Pref. Present	.35**	.00
Emotional Pref. Past	.24*	.03
Emotional Pref. Future	.40**	.00
Social Pref. Present	.26*	.02
Social Pref. Past	.23*	.04
Social Pref. Future	.38**	.00
Self-Identification Present	.42**	.00
Self-Identification Past	.17	.12
Self-Identification Future	.48**	.00
Relationship Status Present	.32**	.00
Relationship Status Past	.11	.33
Relationship Status Future	.42**	.00

Note. PITCSOS = Personal Identification Toward Sexual Orientation Components Scale.
*$p < .05$. **$p < .01$.

Table 3.3. Pilot Pearson Correlations between PITCSOS Items and Self-Reported Sexual Orientation Labels (N = 85)

Item	Pearson Correlation	Significance (2-tailed)
Sexual Attraction	-.046	.73
Behavior	.02.	.86
Fantasy	.26*	.02
Emotional Preference	-.05	.66
Social Preference	-.05	.64
Self-Identification	.02	.84
Relationship Status	-.07	.52
Sexual Orientation Identity Acceptance	.01	.93
Gender Identity	-.14	.23
Sex Role Identity	-.13	.23
Social Context	.04	.71
Sociocultural Experiences	-.05	.69
Biological Factors	.12	.30
Time Factors	.78	.50

Note. ATCSOS = Attitudes Toward Sexual Orientation Components Scale.
*$p < .05$.

Table 3.4. Pilot Pearson Correlations between ATCSOS Items and Self-Reported Sexual Orientation Labels (N = 85)

Final Instruments

Attitudes Toward Components of Sexual Orientation Scale. The pilot study data supported the use of this scale in further investigation of the hypotheses of this study. The overall Cronbach's alpha was high, at .78, item-total correlations were strong, ranging from .23 to .63. Therefore, the ATCSOS retained all 14 originally proposed components with 14 self-rated items assessing participants' attitudes toward (a) Behavior, (b) Sexual Attraction, (c) Fantasy, (d) Emotional Preference, (e) Social Preference, (f) Sexual Orientation Self-Identification, (g) Current Relationship Status, (h) Self-Acceptance of Current Sexual Orientation Identity, (i) Gender Identity, (j) Sex-Role Identity, (k) Social Context, (l) Internalized Sociocultural Experiences, (m) Biology, and (n) Time as they relate to importance in defining a person's sexual orientation.

Personal Identification Toward Components of Sexual Orientation. The pilot study data similarly supported the legitimate use of this scale in further investigation of this study. The overall Cronbach's alpha was high, at .98, item-total correlations were strong, ranging from .65 to .97. Therefore, the PITCSOS retained all seven components with 21 items that assessed participants' own sexual orientation with regard to the following components (a) Sexual Attraction, (b) Behavior, (c) Fantasy, (d) Emotional Preference, (e) Social Preference, (f) Self-Identification, and (g) Current Relationship Status.

Data Collection Procedure

All measures were administered through a website, in a computer-based format. As such, participants were instructed to complete the instruments at any internet-

connected computer to which they had access. It may be noted that the university student cohort was also given these instructions to maintain the consistency of methodology. In completing the instruments, participants were initially guided through an introductory section in which the purposes, basic design, potential benefits and risks, and informed consent information regarding the study were outlined. Before clicking an "acknowledgement" button to indicate consent to participate in the survey, participants were asked to provide their date of birth, as well as a site code, which identified to which cohort group they belonged (i.e., LGBT, HET – heterosexual, or EXP – academia). Participants then completed the instruments, and were then presented with a printable debriefing form following the completion of the instruments. To be entered in the drawing, participants must have been willing to supply an email address so they could be contacted if selected, and participants were given the option at this point of either exiting the site or continuing to the raffle participation page. Anonymity was maintained through explicit explanation that entering the drawing was completely voluntary, and that personal information would be submitted and stored separately from all other submitted survey data.

Analysis of Data

First, standard descriptive statistics were calculated for each of the scales, including means, standard deviations, and reliability coefficients. These statistics were generated for each cohort (LGBT, HET, and EXP). Sex, race/ethnicity, and other demographic differences were examined using analysis of variance (ANOVA), which provided for a constant experiment-wise error rate of .05. Post hoc comparisons were

then incorporated to assess any demographic differences in sexual orientation component ratings. Validity and reliability analyses were again conducted to ensure that the results of the pilot study were generalizable to non-heterosexual populations.

The next step of the data analysis process was to investigate the rating patterns in the ATCSOS for each cohort group. First, a rank-order list of components considered to be important in the defining of sexual orientation was generated for each cohort. These hierarchies were calculated by collapsing and averaging component ratings across participants within the heterosexual, non-heterosexual, and academic cohorts. A rank order list of overall component ratings for each cohort was thus established. Between and within-group differences in rankings were then tested using multivariate analysis of variance (MANOVA), as well as Tukey nonparametric tests.

The second part of the study investigated the extent to which participant's self-identified label corresponded with his or her sexual orientation 'profile,' created from the PITCSOS. The PITCSOS consists of items that were compared and condensed to generate a profile score for each participant. The assumption underlying the creation of this scale was that sexual orientation is a latent variable, and the components on the scale represent manifest variables for the latent variable of sexual orientation. In other words, reported sexual attraction, behavior, fantasies, etc. were considered to be different measures of the same thing, sexual orientation. This assumption was supported in the pilot study in that correlations between each PITCSOS item and self-reported sexual orientation label were significant at the .05 level or below. Thus, the pilot study data supported the use of the Kinsey Scale in rating sexual orientation components for

personal preference in the PITCSOS. Also based on the supportive data from the pilot study, an average sexual orientation profile was calculated for each participant based on his or her responses to all items on the PITCSOS. The profiles were then analyzed against the participants' self-reported sexual orientation label, as collected in the Demographics section of the inventory. Finally, a multivariate analysis was conducted to investigate patterns of variance in profile-label correspondence within and across groups.

Summary

This chapter described the methodology utilized for the present study. Prior to explaining the details of the method, the rationale and purposes for the research were reviewed. In alignment with the purposes, participants and sampling methodology, instruments, data collection, procedures, pilot study, and analysis of data were a part of the methodology. The next chapter consists of the research data collected from the methods explained in this chapter.

CHAPTER 4

RESULTS

Reliability of Data and Preliminary Investigations

To verify the utility of the measures utilized in this study, the internal consistency reliabilities and power were calculated. In addition, the factorial structure of the instruments was also explored using varimax and direct oblimin exploratory factor analysis.

The reliability analysis demonstrated high internal consistency for each of the measures. The value of the coefficient alpha for the scale of Attitudes Toward Components of Sexual Orientation (ATCSOS) was .78, supporting the internal consistency of the ATCSOS. The item-total correlations and alphas are listed in Table 4.1. Similarly, the coefficient alpha for the scale of Personal Identification Toward Components of Sexual Orientation (PITCSOS) was also robust at .98, which also supported the internal consistency reliability of this scale. The Cronbach's alphas and item-total correlations for this scale are presented in Table 4.2. According to Walsh and Betz (2000), an alpha between .70-.80 is sufficient for research purposes, and .80 and above is appropriate for clinical use. The values of the coefficient alphas indicated that

both scales utilized in this study have internal consistency reliability that are sufficient for this research.

In addition, a post-hoc power analysis was performed to verify that the sample used in the present study demonstrated an adequate number of participants to provide for minimally reliable answers to the hypotheses under investigation. With an overall effect size of .75, this analysis reflected a power of .74, which is adequate for research purposes.

Item	Item-Total Correlation	Alpha if Deleted
Sexual Attraction	.17	.80
Behavior	.19	.78
Fantasy	.18	.79
Emotional Preference	.15	.79
Social Preference	.32	.77
Self-Identification	.16	.78
Relationship Status	.38	.76
Sexual Orientation Identity Acceptance	.44	.76
Gender Identity	.30	.76
Sex Role Identity	.54	.75
Social Context	.49	.76
Sociocultural Experiences	.44	.76
Biological Factors	.16	.78
Time Factors	.23	.77

Note. ATCSOS = Attitudes Toward Sexual Orientation Components Scale.

Table 4.1. Reliability for ATCSOS, Main Study Data; Overall Cronbach's Alpha = .79 (N = 400)

Item	Item-Total Correlation	Alpha if Deleted
Sexual Attraction Present	.97	.99
Sexual Attraction Past	.89	.99
Sexual Attraction Future	.98	.99
Behavior Present	.97	.99
Behavior Past	.87	.99
Behavior Future	.98	.99
Fantasy Present	.95	.99
Fantasy Past	.90	.99
Fantasy Future	.97	.99
Emotional Pref. Present	.95	.99
Emotional Pref. Past	.89	.99
Emotional Pref. Future	.95	.99
Social Pref. Present	.90	.99
Social Pref. Past	.79	.99
Social Pref. Future	.90	.99
Self-Identification Present	.98	.99
Self-Identification Past	.81	.99
Self-Identification Future	.98	.99

Continued

Table 4.2. *Reliability for PITCSOS, Main Study Data; Overall Cronbach's Alpha = .98 (N = 400)*

Table 4.2 Continued

Item	Item-Total Correlation	Alpha if Deleted
Relationship Status Present	.97	.99
Relationship Status Past	.86	.99
Relationship Status Future	.97	.99

Note. PITCSOS = Personal Identification Toward Components of Sexual Orientation Scale

Factor analysis attempts to identify underlying variables, or factors, that explain the pattern of correlations within a set of observed variables (Comrey, 1993). To investigate the underlying factorial structure of the measures utilized in this study, an exploratory factor analysis with was conducted. Bartlett's test of sphericity strongly implied that the correlations among the variables of both the ATCSOS and the PITCSOS were significantly different from zero, with $\chi^2(91) = 1344.92$, $p < .0001$ for the ATCSOS, and $\chi^2(210) = 18472.72$, $p < .0001$ for the PITCSOS. Bartlett's test provided strong evidence that the measures were appropriate for factor analysis. An exploratory factor analysis using maximum likelihood estimation was used to obtain an initial solution for both scales. Next, direct oblimin was utilized to obtain a rotated factor loading matrix.

For the ATCSOS, four eigenvalues were obtained that were greater than 1 in the orthogonal solution. The factors associated with these eigenvalues which accounted for 29%, 10%, 8% and 7% of the total variance. The factor loadings for the oblique solution after rotation are presented in Table 4.3. Regarding what constituted a significant loading, Loehlin's (1992) recommendation of the .30 or above plus theoretical meaningfulness guideline was employed. The first factor was associated with the items of Behavior, Emotional Preference, Social Preference, Relationship Status, Sexual Orientation Identity Acceptance, Gender Identity and Sex Role Identity. All of these items loaded on the first factor at .30 or higher. Due to the variety of types of items loading on this factor, Factor 1 was named "General Sexual Orientation Components." The second factor was associated with Attraction and Fantasy only, which loaded at .514

and .54 respectively. The second factor was thus named "Attraction/Fantasy Components." The third factor was associated with the items of Social Context and Sociocultural Experiences, with factor loadings of -.781 and -.624 respectively. Factor 3 was thus named "External Social-Cultural Components." The fourth factor was associated with the items of Biology and Time, with both items loading at -.4 or higher. The fourth factor was therefore named "Temporal-Biological Components." As would be expected from a scale in which all items are designed to relate to the construct of sexual orientation, the four oblique factors for the ATCSOS were moderately intercorrelated, as shown in Table 4.4.

For the PITCSOS, three eigenvalues emerged that were greater than 1, which were associated with 82, 5, and 5% of the variance. The oblique solution factor loadings after rotation are illustrated in Table 4.5, and the intercorrelations for these factors are listed in Table 4.6. The first factor depicted in Table 4.5 was associated with the items of Attraction Present, Attraction Future, Behavior Present, Behavior Future, Fantasy Past, Fantasy Present, Fantasy Future, Emotional Preference Present, Emotional Preference Future, Self-Identified Sexual Orientation Label Present, Self-Identified Sexual Orientation Label Future, Relationship Status Present, and Relationship Status Future. These loadings were striking because with the exception of Fantasy, each component's present and future items loaded at the level of .53 or higher for this factor. This result diverged from Weinrich's (1993) results, discussed in Chapter 2, where Weinrich reported three factors from his oblique solution, which he named: "General Sexual Orientation," associated with all components; "Socialize With," associated with the

lifestyle and social/emotional preference items; and "Ideal Versus Past/Present," which was associated with Future items only. In the present study, a General Sexual Orientation factor did not emerge. Alternatively, Factor 1 in this study was interpreted as a "Present/Ideal Preferences" factor, because each component's present and future items only loaded on this factor. However, the second factor in the present study did correspond with that of Weirich's (1993) findings. This factor was associated with Social Preference Present, Social Preference Past, and Social Preference Future. Each of these items loaded highly, at .799, .785, and .735 respectively. The second factor was named "Socialization Preferences," based on its correspondence to Weinrich's (1993) published data. The third factor in the present study was associated with the items of Sexual Attraction Past, Behavior Past, Fantasy Past, Emotional Preference Past, Social Preference Past, Self-Identification Past, and Relationship Status Past. Factor 3 in the present study was therefore identified as a "Past Preferences" factor. These results represented a divergence from the results reported by Weinrich (1993) that is discussed fully in the concluding chapter.

	Factor			
ATCSOS Item	1	2	3	4
Sexual Attraction	-.077	**.514**	.066	-.054
Behavior	**.304**	.212	.069	-.197
Fantasy	.067	**.540**	-.091	.034
Emotional Preference	**.337**	-.003	-.034	.048
Social Preference	**.362**	-.049	-.268	.023
Self-Identification	.146	-.011	.014	**-.344**
Relationship Status	**.693**	.017	-.031	-.014
Sexual Orientation Identity Acceptance	**.466**	-.272	-.094	-.346
Gender Identity	**.417**	-.002	-.062	-.180
Sex Role Identity	**.408**	.014	**-.482**	-.018
Social Context	.112	.084	**-.781**	.039
Sociocultural Experiences	-.069	-.054	**-.624**	-.313
Biological Factors	-.062	.157	-.090	**-.407**
Time Factors	-.016	-.031	-.068	**-.596**

Note. Loadings deemed important by author are in boldface. ATCSOS = Attitudes Toward Sexual Orientation Components Scale.

Table 4.3. *Oblique Solution, Primary Pattern Matrix for ATCSOS (N = 400)*

	Factor			
Factor	1	2	3	4
1	1.000			
2	.009	1.000		
3	-.520	.026	1.000	
4	-.392	-.220	.376	1.000

Note. ATCSOS = Attitudes Toward Sexual Orientation Components Scale.

Table 4.4. *Oblique Solution Factor Correlation Matrix, ATCSOS*

	Factor		
PITCSOS Item	1	2	3
Sexual Attraction Present	**.922**	.001	.074
Sexual Attraction Past	.309	-.010	**.689**
Sexual Attraction Future	**.993**	.009	-.019
Behavior Present	**.903**	-.012	.090
Behavior Past	.155	-.015	**.829**
Behavior Future	**.990**	-.026	-.014
Fantasy Present	**.817**	.029	.117
Fantasy Past	**.533**	.025	**.424**
Fantasy Future	**.911**	.008	.058
Emotional Pref. Present	**.668**	.335	-.003
Emotional Pref. Past	.274	.354	**.387**
Emotional Pref. Future	**.720**	.312	-.027
Social Pref. Present	.233	**.799**	-.017
Social Pref. Past	-.138	**.785**	**.296**
Social Pref. Future	.347	**.732**	-.068
Self-Identification Present	**.939**	-.019	.073
Self-Identification Past	-.023	.078	**.878**
Self-Identification Future	**.998**	-.022	.003
Relationship Status Present	**.883**	.019	.068
Relationship Status Past	.017	.049	**.880**
Relationship Status Future	**.993**	.011	-.038

Note. Loadings deemed important by author are in boldface. PITCSOS = Personal Identification Toward Sexual Orientation Components Scale.

Table 4.5. Oblique Solution, Primary Pattern Matrix, PITCSOS (N = 400)

	Factor		
Factor	1	2	3
1	1.000		
2	.672	1.000	
3	.779	.562	1.000

Note. PITCSOS = Personal Identification Toward Sexual Orientation Components Scale.

Table 4.6. *Oblique Solution Factor Correlation Matrix, PITCSOS*

In summary, the exploratory factor analysis conducted on the PITCSOS and ATCSOS informed the present study by offering a structural foundation upon which to analyze the main hypotheses. Four factors emerged from the analysis of the ATCSOS, which were identified as General Sexual Orientation Components, Attraction/Fantasy Components, External Social-Cultural Components, and Temporal-Biological Components. Three factors emerged for the PITCSOS, which were identified as Present-Ideal, Socialize With, and Past factors.

Comparisons on the demographic variables of age, sex, and ethnicity were also examined in this study. As hypothesized, the variable of sex emerged as a significant variable in ANOVA analyses of the study instruments. These results are reported below in full by the main hypotheses of this study. Analysis of ethnicity and age variables revealed no significant differences.

Hypothesis 1

Hypothesis 1 predicted that participants will rate the importance of each component differently, thus forming a hierarchy or rank-order for each individual which may be summed and averaged for each group under investigation. It was hypothesized that a main effect of group affiliation (heterosexual – HET, non-heterosexual – LGBT, or academic – EXP) cohort will emerge such that cohorts' sexual orientation component rankings on the ATCSOS differ significantly from each other.

A one-way ANOVA was conducted to investigate whether group affiliation (HET, LGBT, or EXP) demonstrated an overall effect on opinions of which components are most important in defining sexual orientation, as reported on the ATCSOS. As each

item rather than a single sum or average ATCSOS score per person was analyzed, the family-wise error rate of .05 can be maintained by using Bonferroni's Test, Dunn procedure (Keppel, 1991). With the inclusion of all 14 items in the analysis, the corrected minimum *p*-value of significance using Dunn's procedure was .00357. As presented in Table 4.7, a main effect of cohort emerged for 9 of the 14 sexual orientation components investigated. Specifically, the ANOVA revealed significant main effects of cohort for Sexual Attraction ($F[2,450] = 9.08$, $p < .0001$), Behavior ($F[2,450] = 14.46$, $p < .0001$), Social Preference ($F[2,447] = 6.14$, $p < .01$), Relationship Status ($F[2,449] = 24.53$, $p < .0001$), Sexual Orientation Identity Self-Acceptance ($F[2,446] = 16.17$, $p < .0001$), Gender Identity ($F[2,446] = 23.65$, $p < .0001$), Sex Role Identity ($F[2,450] = 44.60$, $p < .0001$), Social Context ($F[2,448] = 9.72$, $p < .0001$), and Sociocultural Experiences ($F[2,449] = 9.10$, $p < .0001$). These significant main effects reflected a significant difference in ratings between at least two groups for each sexual orientation component. Five components on the ATCSOS did not yield significant results in this analysis, reflecting no significant differences in rankings by cohort. These components were Fantasy ($F[2,437] = 1.81$, $p = .16$), Emotional Preference ($F[2,440] = 4.41$, $p = .01$), Self-Identified Sexual Orientation Label ($F[2,449] = 2.31$, $p = .10$), Biology ($F[2,448] = .65$, $p = .52$); and time ($F[2,448] = 4.55$, $p = .01$). These five components were thus ranked as similarly important in defining sexual orientation by all groups. Therefore, Hypothesis 1 was partially supported for nine of the 14 component areas on the ATCSOS. This hypothesis predicted that a main effect of group affiliation was significantly associated with ATCSOS rankings that were distinct from other cohorts, and

such main effects did emerge for nine of the 14 components: Behavior, Social Preference, Relationship Status, Sexual Orientation Identity Self-Acceptance, Gender Identity, Sex Role Identity, Social Context, and Sociocultural Experiences. In terms of how the nine significant group differences varied beyond overall main effects, hypotheses 2-4 address these directional differences through post hoc analysis.

Sexual Orientation Component	*F*	*p*
Sexual Attraction	9.08*	.00
Behavior	14.46*	.00
Fantasy	1.81	.16
Emotional Preference	4.41	.01
Social Preference	6.14*	.00
Self-Identification	2.31	.10
Relationship Status	24.53*	.00
Sexual Orientation Identity Acceptance	16.17*	.00
Gender Identity	23.65*	.00
Sex Role Identity	44.60*	.00
Social Context	9.72*	.00
Sociocultural Experiences	9.10*	.00
Biological Factors	.65	.52
Time Factors	4.55	.01

Note. Independent variable = cohort. Dependent variable = component ratings (ATCSOS).
ATCSOS = Attitudes Toward Components of Sexual Orientation Scale.
*$p < .00357$.

Table 4.7. Analysis of Variance of ATCSOS by Group Affiliation Cohort

Hypotheses 2

The second hypothesis predicted that the Expert cohort would consider more components to be important in defining sexual orientation than the Heterosexual and LGBT cohorts. To investigate this hypothesis, post hoc Tukey tests were performed on the nine significant main effects of the ATCSOS ANOVA discussed in Hypothesis 1 and presented in Table 4.7.

The means and standard deviations of component rankings by each cohort are provided in Table 4.8. The means in this table were used in the construction of rank-ordered hierarchies of preferences for each cohort. These hierarchies are presented in Table 4.9, with the highest rated component for each group listed as Rank Order #1, the next highest as #2, and so on for each of the 14 components. The Expert cohort demonstrated the widest variability in average rankings, ranging from 6.65-1.85, followed by the LGBT cohort with 6.01-3.04, and the Heterosexual cohort with the lowest variability in rankings, at 5.63-3.62. The Expert cohort was actually the only cohort to endorse any average ranking below 3, and did so for five components: Social Context (M = 2.95, SD = 1.43), Gender Identity (M = 2.68, SD = 2.16), Social Preference (M = 2.45, SD = 1.10), Relationship Status (M = 1.95, SD = 1.32), and Sex Role Identity (M = 1.85, SD = 1.42).

Table 4.10 provides the results of the post hoc Tukey tests for Hypotheses 2-4. These analyses indicated that the Expert cohort endorsed significantly lower rankings from the Heterosexual cohort for eight of the nine significant components, Sex Role Identity (M_{EXP} = 1.85, SD = 1.42; M_{HET} = 4.40, SD = 1.57; M difference = -2.55, $p <$

.001), Gender Identity (M_{EXP} = 2.68, *SD* = 2.16; M_{HET} = 5.19, *SD* = 1.57; *M* difference = -2.50, $p < .001$), Relationship Status (M_{EXP} = 1.95, *SD* = 1.32; M_{HET} = 4.40, *SD* = 1.78; *M* difference = -2.45, $p < .001$), Sexual Orientation Identity Acceptance (M_{EXP} = 3.40, *SD* = 1.96; M_{HET} = 5.44, *SD* = 1.50; *M* difference = -2.04, $p < .001$), Sociocultural Experiences (M_{EXP} = 3.00, *SD* = 1.45; M_{HET} = 4.34, *SD* = 1.42; *M* difference = -1.34, $p < .01$), Social Context (M_{EXP} = 2.95, *SD* = 1.43; M_{HET} = 4.06, *SD* = 1.59; *M* difference = -1.11, $p < .05$), Behavior (M_{EXP} = 4.05, *SD* = 1.91; M_{HET} = 5.25, *SD* = 1.42; *M* difference = -1.20, $p < .01$), and Social Preference (M_{EXP} = 2.45, *SD* = 1.10; M_{HET} = 3.62, *SD* = 1.61; *M* difference = -1.17, $p < .01$), and significantly higher than the Heterosexual cohort on one component, Sexual Attraction (M_{EXP} = 6.65, *SD* = .59; M_{HET} = 5.63, *SD* = 1.38; *M* difference = 1.02, $p < .01$). As illustrated and in Table 4.10, the significant mean differences between the Expert and both layperson groups (LGBT and Heterosexual) were negative in 12 of the 13 significant comparison analyses, indicating lower means for the academic cohort. Similarly, the Expert cohort showed significantly lower rankings from the LGBT cohort for four of the 11 significant components: Gender Identity (M_{EXP} = 2.68, *SD* = 2.16; M_{LGBT} = 4.28, *SD* = 2.03; *M* difference = -1.60, $p < .01$), Relationship Status (M_{EXP} = 2.07, *SD* = 1.32; M_{LGBT} = 3.38, *SD* = 2.07; *M* difference = -1.43, $p < .01$), Sexual Orientation Identity Acceptance (M_{EXP} = 3.40, *SD* = 1.96; M_{LGBT} = 4.73, *SD* = 2.03; *M* difference = -1.33, $p < .01$), and Sex Role Identity (M_{EXP} = 1.85, *SD* = 1.42; M_{LGBT} = 3.04, *SD* = 1.85; *M* difference = -1.19, $p < .01$). Hypothesis 2 predicted that the Expert cohort would rank more components highly than any other group, emphasizing that more components are important in defining sexual orientation than the layperson

groups. This hypothesis was not supported in that the Expert cohort rated the eight components of Sex Role Identity, Gender Identity, Sexual Orientation Identity Acceptance, Relationship Status, Sociocultural Experiences, Social Context, Behavior, and Social Preference as less important in conceptualizing sexual orientation than the other two groups. Table 4.8 above also illustrates the lower average rankings of the academic group compared to the other two cohorts. Thus, the second hypothesis did not receive confirmatory support.

	Heterosexual		LGBT		Expert	
Component	*M*	*SD*	*M*	*SD*	*M*	*SD*
Sexual Attraction	5.63	1.38	6.01	1.17	6.65	.59
Behavior	5.25	1.42	4.51	1.66	4.05	1.91
Fantasy	4.22	1.46	4.39	1.62	4.85	1.35
Emotional Preference	4.58	1.66	5.07	1.71	4.80	1.74
Social Preference	3.62	1.61	3.25	1.68	2.45	1.10
Self-Identification	5.01	1.75	4.81	1.89	5.65	1.57
Relationship Status	4.40	1.78	3.38	2.07	1.95	1.32
SO Identity Acceptance	5.44	1.50	4.73	2.03	3.40	1.96
Gender Identity	5.19	1.57	4.28	2.03	2.68	2.16
Sex Role Identity	4.40	1.57	3.04	1.85	1.85	1.42
Social Context	4.06	1.59	3.41	1.81	2.95	1.43
Sociocultural Experiences	4.34	1.42	3.87	1.75	3.00	1.45
Biology	4.54	1.71	4.59	1.91	4.10	1.97
Time	4.39	1.57	3.99	1.70	3.55	1.61

Note. ATCSOS = Attitudes Toward Sexual Orientation Components Scale. LGBT = lesbian gay bisexual and transgendered.

Table 4.8. Means and Standard Deviations of ATCSOS Component Ratings by Cohort

	Heterosexual		LGBT		Expert	
Rank Order #	Component	*M*	Component	*M*	Component	*M*
1	Attraction	5.63	Attraction	6.01	Attraction	6.65
2	SO ID Acceptance	5.44	Emotional Pref.	5.07	SO Self-ID	5.65
3	Behavior	5.25	SO Self-ID	4.81	Fantasy	4.85
4	Gender ID	5.19	SO ID Acceptance	4.73	Emotional Pref.	4.80
5	SO Self-ID	5.01	Biology	4.59	Biology	4.10
6	Emotional Pref.	4.58	Behavior	4.51	Behavior	4.05
7	Biology	4.54	Fantasy	4.39	Time	3.55
8	Sex Role ID	4.40	Gender ID	4.22	SO ID Acceptance	3.40
9	Relationship Status	4.40	Time	3.99	Sociocultural Experiences	3.00
10	Time	4.39	Sociocultural Experiences	3.87	Social Context	2.95
11	Sociocultural Experiences	4.34	Social Context	3.41	Gender ID	2.68
12	Fantasy	4.22	Relationship Status	3.38	Social Preference	2.45
13	Social Context	4.06	Social Preference	3.25	Relationship Status	1.95
14	Social Preference	3.62	Sex Role ID	3.04	Sex Role ID	1.85

Note. ATCSOS = Attitudes Toward Sexual Orientation Components Scale. LGBT = lesbian gay bisexual and transgendered.

Table 4.9. Rankings of ATCSOS Sexual Orientation Components from Highest to Lowest by Group Affiliation Cohort with Mean

Component and Cohorts	Post Hoc Tests (Mean Difference)		
	Heterosexual *N* = 198	LGBT *N* = 235	Expert *N* = 20
Attraction			
Heterosexual		-.38**	-1.02**
LGBT	.38**		-.64
Expert	1.02**	.64	
Behavior			
Heterosexual		.74***	1.20**
LGBT	-.74***		.46
Expert	-1.20**	-.46	
Fantasy			
Heterosexual		-.17	-.63
LGBT	.17		-.46
Expert	.63	.46	
Emotional Preference			
Heterosexual		-.49**	-.22
LGBT	.49**		.27
Expert	.22	-.27	
Social Preference			
Heterosexual		.37	1.17**
LGBT	-.37		.80
Expert	-1.17**	-.80	
Self-ID			
Heterosexual		.20	-.64
LGBT	-.20		-.84
Expert	.64	.84	

Continued

Table 4.10. Post Hoc Tukey Test Results of ATCSOS Analysis of Variance, Mean Differences between Cohorts

Table 4.10 Continued

Component and Cohorts	Heterosexual	LGBT	Expert
Relationship Status			
Heterosexual		1.02***	2.45***
LGBT	-1.02***		1.43**
Expert	-2.45***	-1.43**	
SO ID Acceptance			
Heterosexual		.71***	2.04***
LGBT	-.71***		1.33**
Expert	-2.04***	-1.33**	
Gender ID			
Heterosexual		.91***	2.50***
LGBT	-.91***		1.60**
Expert	-2.50***	-1.60**	
Sex Role ID			
Heterosexual		1.37***	2.55***
LGBT	-1.37***		1.19**
Expert	-2.55***	-1.19**	
Social Context			
Heterosexual		.65***	1.11*
LGBT	-.65***		.46
Expert	-1.11*	-.46	
Sociocultural Experiences			
Heterosexual		.47**	1.34**
LGBT	-.47**		.87
Expert	-1.34**	-.87	
Biology			
Heterosexual		-.05	.44
LGBT	.05		.49
Expert	-.44	-.49	

Continued

Table 4.10 Continued

Component and Cohorts	Heterosexual	LGBT	Expert
Time			
Heterosexual		.40*	.84
LGBT	-.40*		.44
Expert	-.84	-.44	

Note. ATCSOS = Attitudes Toward Sexual Orientation Components Scale. LGBT = lesbian gay bisexual and transgendered. *$p < .05$. **$p < .01$. ***$p < .001$.

Hypothesis 3

The third hypothesis predicted that the Heterosexual cohort will value overt Behavior, Relationship Status, and Biology more highly than the LGBT or Expert cohorts in the conceptualization of sexual orientation. The post hoc Tukey test results are presented in Table 4.10. As predicted, the Heterosexual cohort on average rated Behavior significantly *higher* than the other cohorts, where the Heterosexual cohort (M = 5.25, SD = 1.42) reported an average difference of .74 ($p < .001$) from the LGBT cohort (M = 4.51, SD = 1.66) and 1.20 ($p < .001$) from the Expert cohort (M = 4.05, SD = 1.91) Similarly, the Heterosexual cohort rated Relationship Status significantly higher than both other cohorts, with a mean difference of 1.02 ($p < .001$) from the LGBT cohort and 2.45 ($p < .001$) from the Expert cohort. In contrast, there was no significant difference in Heterosexual ratings of Biology from either the Expert or LGBT cohort. These ratings were non-significant, with mean difference values of -.05 (p = .96) with the LGBT cohort, and .44 (p = .56) for the Expert cohort. Hypothesis 3 was thus supported for two of the three components of Behavior and Relationship status, implying that the Heterosexual cohort valued behavior and relationship status significantly higher than either the Expert or LGBT cohorts. The hypothesis was not supported for the component of Biology, implying that those in the Heterosexual cohort rated this component similarly to both other cohorts.

Hypothesis 4

Hypothesis 4 predicted that LGBT individuals will value Self-Identification, Emotional Preference, and Social preference in the conceptualization of sexual

orientation more than the Heterosexual or Expert cohorts. Similar to Hypothesis 3, the analysis associated with this hypothesis was performed in the post hoc Tukey tests conducted on the significant main effects of the ANOVA of the ATCSOS by cohort. As presented in Table 4.10, the LGBT cohort did not rate the component of Self-Identification Label (M_{LGBT} = 4.81, *SD* = 1.89) higher than either the Heterosexual (*M* = 5.01, *SD* = 1.75) or Expert (*M* = 5.65, *SD* = 1.57) cohorts, with mean differences of -.20 (p = .48) and -.84 (p = .11) respectively. Similarly, for Emotional Preference the LGBT cohort (*M* = 5.07, *SD* = 1.71) did not rate this component significantly differently on average than the Heterosexual (M_{HET} = 4.58, *SD* = 1.66; *M* difference =.49, $p < .01$), or the Expert cohort (M_{EXP} = 4.80, *SD* = 1.74; *M* difference = .27 (p = .78). For the component of Social Preference, LGBT ratings were also not significantly different from either cohort, with mean average differences of -.37 (p = .05) with the Heterosexual cohort, and .80 (p = .09) with the Expert cohort. Hypothesis 4 was thus not supported for any of the three investigated components. No significant differences from either the Expert or the Heterosexual cohorts emerged for the three components of Self-Identification, Emotional Preference, and Social Preference.

Hypothesis 5

Hypothesis 5 predicted that when analyzed by self-identified sexual orientation label alone, Heterosexual, Bisexual, and Homosexual cohorts would display significantly different patterns of component rankings from each other, as measured by the ATCSOS. The decision to divide the LGBT sample into Homosexual and Bisexual cohorts for the analysis of this hypothesis was made post hoc, based on the unexpectedly large number

of bisexual individuals ($N = 49$) who participated in the study. The number of bisexual participants was adequate to incorporate as an additional cohort for those hypotheses investigating differences based on sexual orientation self-identified label, as reported in the Demographics section of the instruments.

A one-way ANOVA was conducted to investigate this hypothesis, where self-identified sexual orientation label was the independent variable, and ATCSOS ratings were the dependent variable. Table 4.11 illustrates the main effects of this analysis, and Table 4.12 enumerates the means and standard deviations of average component rankings by sexual orientation cohort. As indicated in Table 4.11, significant main effects of self-identified sexual orientation label emerged for nine of the 14 components at the Bonferroni family-wise error level of significance at .00357 or lower. The components which did *not* show a significant main effect for sexual orientation were Fantasy (F[2, 437] = 1.44, $p = .24$), Emotional Preference (F[2, 440] = 3.57, $p = .03$), Social Preference (F[2, 445] = 2.78, $p = .06$), Sexual Orientation Self-Identification Label (F[2, 447] = 1.24, $p = .29$), and Time (F[2, 448] = 3.06, $p = .05$). The nine significant main effects of this analysis were further explored using Tukey post hoc tests. The results of this analysis are presented in Table 4.13.

Participants in the Heterosexual and Homosexual cohorts differed significantly in ratings of eight of the nine significant components: Attraction ($M_{HET} = 5.65$, SD = 1.41; $M_{HOM} = 6.12$, SD = 1.03; M difference = .48, $p < .001$), Behavior ($M_{HET} = 5.91$, SD = 1.46; $M_{HOM} = 4.57$, SD = 1.73; M difference = .62, $p < .001$), Relationship Status ($M_{HET} = 4.30$, SD = 1.84; $M_{HOM} = 3.38$, SD = 2.12; M difference = .92, $p < .001$), Sexual

Orientation Identity Acceptance (M_{HET} = 5.37, SD = 1.59; M_{HOM} = 4.63, SD = 2.08; *M* difference = .74, $p < .001$), Gender Identity (M_{HET} = 5.16, SD = 1.61; M_{HOM} = 4.27, SD = 2.07; *M* difference = .89, $p < .001$), Sex Role Identity (M_{HET} = 4.38, SD = 1.61; M_{HOM} = 2.91, SD = 1.83; *M* difference = 1.47, $p < .001$), Social Context (M_{HET} = 4.00, SD = 1.63; M_{HOM} = 3.42, SD = 1.81; *M* difference = .58, $p < .01$), and Sociocultural Experiences (M_{HET} = 4.31, SD = 1.45; M_{HOM} = 3.89, SD = 1.76; *M* difference = .42, $p < .05$). Specifically, heterosexuals rated Behavior, Relationship Status, Sexual Orientation Identity Acceptance, Gender Identity, Sex Role Identity, Social Context, and Sociocultural Experiences significantly *higher* than Homosexuals, and Attraction lower than the Homosexual cohort in conceptualizing sexual orientation.

In analyzing Heterosexual and Bisexual cohorts, significant differences emerged for 7 of the 9 significant components: Behavior (M_{HET} = 5.19, SD = 1.46; M_{BI} = 4.22, SD = 1.42; *M* difference = .96, $p < .001$), Relationship Status (M_{HET} = 4.30, SD = 1.84; M_{BI} = 3.06, SD = 1.71; *M* difference = 1.24, $p < .001$), Gender Identity (M_{HET} = 5.16, SD = 1.61; M_{BI} = 3.69, SD = 2.02; *M* difference = 1.46, $p < .001$), Sex Role identity (M_{HET} = 4.38, SD = 1.61; M_{BI} = 2.92, SD = 1.79; *M* difference = 1.47, $p < .001$), Social Context (M_{HET} = 4.00, SD = 1.63; M_{BI} = 3.35, SD = 1.67; *M* difference = .65, $p < .05$), Sociocultural Experiences (M_{HET} = 4.31, SD = 1.45; M_{BI} = 3.49, SD = 1.61; *M* difference = .82, $p < .01$), and Biology (M_{HET} = 4.50, SD = 1.75; M_{BI} = 3.61, SD = 1.82; *M* difference = .89, $p < .01$). Specifically, the Heterosexual cohort rated *all* of these significant components of Behavior, Relationship Status, Gender Identity, Sex Role

Identity, Social Context, Sociocultural Experiences and Biology higher than the Bisexual cohort.

Finally, in analyzing Homosexual and Bisexual cohorts, only one significant difference occurred in the ratings of the nine significant components, that of Biology (M_{HOM} = 4.82, SD = 1.84; M_{BI} = 3.61, SD = 1.81; *M* difference = 1.21, $p < .001$). This result strongly implied that Homosexual and Bisexual cohorts agreed on virtually every component in its importance in conceptualizing sexual orientation except for Biology, which bisexuals rated as significantly less important than the Homosexual cohort in conceptualizing sexual orientation.

Hypothesis 5 was partially supported with nine of the 14 components on the ATCSOS ranked significantly different according to sexual orientation cohort. Heterosexual and Homosexual cohorts within this sample showed the most divergence in opinion with eight significant differences in rankings (for Attraction, Behavior, Relationship Status, Sexual Orientation Identity Acceptance, Gender Identity, Sex Role Identity, Social Context, and Sociocultural Experiences), with heterosexuals overwhelmingly endorsing higher average rankings than homosexuals with the single exception of Attraction which was rated higher by the Homosexual cohort. Similarly, the Heterosexual and Bisexual cohorts rated seven components significantly different from each other (Behavior, Relationship Status, Gender Identity, Sex Role Identity, Social Context, Sociocultural Experiences and Biology), where the Heterosexual cohort rated all 7 components higher than the Bisexual cohort. The Homosexual and Bisexual

cohorts' rankings diverged on only one component, Biology, in which bisexuals rated this component significantly lower than homosexuals.

Sexual Orientation Component	*F*	*p*
Sexual Attraction	7.34*	.00
Behavior	11.55*	.00
Fantasy	1.44	.24
Emotional Preference	3.57	.03
Social Preference	2.78	.06
Self-Identification	1.24	.29
Relationship Status	14.59*	.00
Sexual Orientation Identity Acceptance	8.63*	.00
Gender Identity	17.86*	.00
Sex Role Identity	40.38*	.00
Social Context	6.64*	.00
Sociocultural Experiences	6.61*	.00
Biological Factors	8.95*	.00
Time Factors	3.06	.04

Note. Independent variable = self-identified sexual orientation label. Dependent variable = component ratings (ATCSOS). ATCSOS = Attitudes Toward Sexual Orientation Components Scale.
*$p < .00357$.

Table 4.11. Analysis of Variance of ATCSOS by Self-Identified Sexual Orientation Label

	Heterosexual $N = 206$		Bisexual $N = 49$		Homosexual $N = 196$	
Component	*M*	*SD*	*M*	*SD*	*M*	*SD*
Sexual Attraction	5.65	1.41	5.80	1.41	6.12	1.03
Behavior	5.19	1.46	4.22	1.42	4.57	1.73
Fantasy	4.23	1.45	4.19	1.35	4.47	1.68
Emotional Preference	4.61	1.67	4.88	1.73	5.07	1.71
Social Preference	3.58	1.67	3.21	1.49	3.21	1.65
Self-Identification	5.00	1.76	4.55	1.87	4.96	1.87
Relationship Status	4.30	1.84	3.06	1.71	3.38	2.12
SO Identity Acceptance	5.37	1.59	4.74	1.81	4.63	2.08
Gender Identity	5.16	1.61	3.69	2.02	4.27	2.07
Sex Role Identity	4.38	1.61	2.92	1.79	2.91	1.83
Social Context	4.00	1.63	3.35	1.67	3.42	1.81
Sociocultural Experiences	4.31	1.45	3.49	1.61	3.89	1.76
Biology	4.50	1.75	3.61	1.81	4.82	1.84
Time	4.36	1.56	4.00	1.63	3.96	1.73

Note. ATCSOS = Attitudes Toward Sexual Orientation Components Scale.

Table 4.12. Means and Standard Deviations of ATCSOS Component Ratings by Self-Identified Sexual Orientation Label

Component and Cohorts	Post Hoc Tests (Mean Difference)		
	Heterosexual *N* = 206	Bisexual *N* = 49	Homosexual *N* = 196
Attraction			
Heterosexual		-.15	-.48***
Bisexual	.15		-.33
Homosexual	.48***	.33	
Behavior			
Heterosexual		.96***	.62***
Bisexual	-.96***		-.35
Homosexual	-.62***	.35	
Fantasy			
Heterosexual		.04	-.24
Bisexual	-.04		-.29
Homosexual	.24	.29	
Emotional Preference			
Heterosexual		-.26	-.46
Bisexual	.26		-.19
Homosexual	.46	.19	
Social Preference			
Heterosexual		.37	.37
Bisexual	-.37		.00
Homosexual	-.37	.00	
Self-ID			
Heterosexual		.45	.04
Bisexual	-.45		-.41
Homosexual	-.04	.41	

Continued

Table 4.13. Post Hoc Tukey Test Results of ATCSOS Analysis of Variance, Mean Differences among Heterosexual, Bisexual, and Homosexual Cohorts

Table 4.13 Continued

Component and Cohorts	Heterosexual	LGBT	Expert
Relationship Status			
Heterosexual		1.24***	.92***
Bisexual	-1.24***		.32
Homosexual	-.92***	-.32**	
SO ID Acceptance			
Heterosexual		.63	.74***
Bisexual	-.63		.12
Homosexual	-.74***	-.12	
Gender ID			
Heterosexual		1.46***	.89***
Bisexual	-1.46***		-.57
Homosexual	-.89***	.57**	
Sex Role ID			
Heterosexual		1.47***	1.47***
Bisexual	-1.47***		.01
Homosexual	-1.47***	-.01	
Social Context			
Heterosexual		.65*	.58**
Bisexual	-.65*		-.07
Homosexual	-.58**	.07	
Sociocultural Experiences			
Heterosexual		.82**	.42*
Bisexual	-.82**		-.40
Homosexual	.42*	.40	
Biology			
Heterosexual		.89**	-.32
Bisexual	-.89**		-1.21***
Homosexual	.32	1.21***	

Continued

Table 4.13 Continued

Component and Cohorts	Heterosexual	LGBT	Expert
Time			
Heterosexual		.36	.39
Bisexual	.36		.04
Homosexual	-.39	-.04	

Note. ATCSOS = Attitudes Toward Sexual Orientation Components Scale.
*$p < .05$. **$p < .01$. ***$p < .001$.

Hypothesis 6

Hypothesis 6 predicted that females overall will rate Sexual Attraction higher than any other component in the importance of assessing sexual orientation. It was also predicted that females will rate Emotional Preference significantly higher than males in this study. The means and standard deviations of participants' ratings by sex on the ATCSOS are presented in Table 4.15. As predicted, the female cohort did rate Attraction higher than any other component, with $M = 5.77$, $SD = 1.23$. Thus the initial prediction of Hypothesis 6 was supported.

To address the second prediction of this hypothesis, a one-way ANOVA was conducted to investigate this hypothesis, in which Sex was the independent variable and ATCSOS ratings were the dependent variable. The transgendered cohort was included in this analysis for consistency and thoroughness, as those identifying as transgendered were included in the LGBT cohort in Hypotheses 1-4. The small sample size ($N = 9$) precluded significant results from emerging within-subjects, but the means and other descriptive data for this cohort are nonetheless theoretically and conceptually useful, and are thus included. The results of this ANOVA are presented in Table 4.14. As Table 4.14 illustrates, the only significant main effect in this analysis was for Fantasy, at $F[2,436] = 9.35$, $p < .001$. The second prediction of Hypothesis 6 was therefore not supported, as no main effect of sex on the component of Emotional Preference emerged from this analysis. Further investigation of the single significant main effect was considered to be potentially enlightening, so post hoc Tukey tests were performed on the significant main effect of Fantasy. This analysis showed the significant difference to be

between male and female cohorts, with males rating fantasy an average difference of .63 ($p < .001$) higher than females in this sample.

The hypothesis that females would rate Emotional Preference significantly higher in conceptualizing sexual orientation than males did not receive confirmatory support, but the analysis did provide elucidating information concerning differences in the opinions held by males and females for the ATCSOS components in general. These results implied that males and females on average rated every component on the ATCSOS similarly with the exception of Fantasy. Males in this sample considered Fantasy to be more important in defining sexual orientation than females in this study.

Sexual Orientation Component	*F*	*p*
Sexual Attraction	1.67	.19
Behavior	1.46	.23
Fantasy	9.35*	.00
Emotional Preference	2.56	.08
Social Preference	3.53	.03
Self-Identification	1.82	.16
Relationship Status	.69	.50
Sexual Orientation Identity Acceptance	1.79	.17
Gender Identity	.73	.48
Sex Role Identity	.03	.97
Social Context	2.13	.12
Sociocultural Experiences	1.70	.19
Biological Factors	1.81	.16
Time Factors	.01	.99

Note. Independent variable =sex. Dependent variable = component ratings (ATCSOS). ATCSOS = Attitudes Toward Sexual Orientation Components Scale.
*$p < .001$

Table 4.14. Analysis of Variance for ATCSOS by Sex

	Female $N = 225$		Male $N = 214$		Transgender $N = 9$	
Component	*M*	*SD*	*M*	*SD*	*M*	*SD*
Sexual Attraction	5.77	1.23	5.98	1.28	5.56	2.01
Behavior	4.89	1.58	4.79	1.64	4.00	1.41
Fantasy	4.02	1.45	4.66	1.57	4.44	1.51
Emotional Preference	4.89	1.72	4.74	1.70	6.00	1.12
Social Preference	3.50	1.58	3.22	1.65	4.44	2.56
Self-Identification	5.10	1.73	4.78	1.89	4.67	2.12
Relationship Status	3.67	1.95	3.88	2.06	3.56	2.65
SO Identity Acceptance	5.12	1.80	4.83	1.91	5.56	2.30
Gender Identity	4.56	1.97	4.64	1.90	5.33	2.24
Sex Role Identity	4.59	1.90	3.60	1.84	3.44	2.13
Social Context	3.82	1.68	3.57	1.77	2.89	2.09
Sociocultural Experiences	4.19	1.63	3.90	1.61	4.00	1.58
Biology	4.38	1.77	4.69	1.85	4.89	2.42
Time	4.16	1.62	4.14	1.70	4.11	1.69

Note. ATCSOS = Attitudes Toward Sexual Orientation Components Scale.

Table 4.15. Means and Standard Deviations of ATCSOS Component Ratings by Sex

Hypothesis 7

Hypothesis 7 stated that males will rate Sexual Behavior more highly than any other component in the importance of assessing sexual orientation, and significantly higher than both other sex cohorts. A one-way ANOVA was conducted to investigate sex differences in this study, and the results of this analysis are presented above in Tables 4.14 and 4.15. As indicated in Table 4.15, participants identified as male in this study did not endorse Behavior higher than any other component on the ATCSOS, thus providing disconfirmatiory support for Hypothesis 7. The average rating for males on the Behavior component was 4. 79 (SD = 1.64), which was lower than both Attraction (M = 5.98, SD = 1.28) and Sexual Orientation Identity Acceptance (M = 4.83, SD = 1.91). Furthermore, no main effects emerged from this ANOVA for the component of Behavior. As presented above, the only significant main effect of Sex in this analysis occurred for the component of Fantasy. Hypothesis 7 was therefore not supported, in that males' ratings of Sexual Behavior did not diverge significantly from that of any other sex cohort.

Hypothesis 8

This hypothesis predicted that males in the LGBT cohort would rate sexual orientation components on the ATCSOS higher on average than males in the heterosexual cohort, thus indicating higher levels of importance assigned to a greater number of components in defining sexual orientation within the male non-heterosexual community. To investigate this hypothesis, an ANOVA was conducted on the male-only subset of the sample, with sexual orientation self-identified label acting as the independent variable and ATCSOS averages as the dependent variable. The Bonferroni criterion for family-

wise error was not employed for this analysis, as ATCSOS average total scores were used rather than each individual item. The results of this ANOVA revealed a main effect of sexual orientation that was significant at the .05 level (F[2, 197] = 3.43, p = .03). Post hoc Tukey tests explored this main effect and showed the significant mean differences to be between the Heterosexual and Bisexual Male cohorts only. Specifically, Heterosexual Males rated ATCSOS items an average of .66 (p = .03) higher than Bisexual Males (M_{HET} = 4.51, SD = .86; M_{BI} = 3.86, SD = .64). These post hoc results are illustrated in Table 4.16. Overall, Hypothesis 8 was supported in that a significant main effect of sexual orientation emerged for males on the ATCSOS, implying that as a group, heterosexual and non-heterosexual participants differed significantly from each other in their overall ratings of ATCSOS items. These findings were not ubiquitous, however, in that the significant difference in ratings occurred between Bisexual and Heterosexual Male cohorts only.

	Post Hoc Tests (Mean Difference)		
Sexual Orientation Cohorts	Heterosexual Males *N* = 97	Homosexual Males *N* = 105	Bisexual Males *N* = 14
Heterosexual Males		.19	.66*
Homosexual Males	- .19		.47
Bisexual Males	- .66*	- .47	

Note. ATCSOS = Attitudes Toward Sexual Orientation Components Scale.
*$p < .05$.

Table 4.16. Post Hoc Tukey Test Results of ATCSOS Analysis of Variance, Mean Differences between Heterosexual and LGBT Males (N = 216)

Hypothesis 9

This hypothesis predicted that females in the LGBT cohort would rate sexual orientation components on the ATCSOS higher on average than females in the heterosexual cohort, thus indicating higher levels of importance assigned to a greater number of components in defining sexual orientation within the male non-heterosexual community. To investigate this hypothesis, an ANOVA was conducted on the female-only subset of the sample, with sexual orientation self-identified label acting as the independent variable and ATCSOS averages as the dependent variable. Similar to Hypothesis 8, the Bonferroni corrected significance level was not used in this analysis, as ATCSOS sums rather than items were used. The results of this ANOVA revealed a main effect of sexual orientation that was significant below the .001 level ($F[2, 204] = 10.76$, $p < .001$). Table 4.17 depicts the results of post hoc Tukey tests which explored this main effect. The Tukey tests showed the significant mean differences to be between the Heterosexual Female and Bisexual Female cohorts ($M_{HET} = 4.67$, SD = .87; $M_{BI} = 4.03$, SD = .61; *M* difference = .63, $p = .002$) and between the Heterosexual Female and Homosexual Female cohorts ($M_{HET} = 4.67$, SD = .87; $M_{HOM} = 4.16$, SD = .86; *M* difference = .05, $p < .001$). Specifically, the Heterosexual Female cohort rated the components on the ATCSOS higher on average than both the Homosexual and Bisexual female cohorts. A significant mean difference between the Female Homosexual and Female Bisexual cohorts did not emerge (*M* difference = .13, $p = .77$), indicating that the ratings of these cohorts were quite similar to each other. Hypothesis 8 predicted a significant difference between Heterosexual and both non-heterosexual female cohorts,

and was thus strongly supported in this analysis, as Heterosexual Female's average ATCSOS ratings were significantly higher than both the Homosexual and Bisexual Female cohorts.

	Post Hoc Tests (Mean Difference)		
Sexual Orientation Cohorts	Heterosexual Females *N* = 106	Homosexual Females *N* = 89	Bisexual Females *N* = 32
Heterosexual Females		.50**	.63*
Homosexual Females	- .50**		.13
Bisexual Females	- .63*	- .13	

Note. ATCSOS = Attitudes Toward Sexual Orientation Components Scale. LGBT = lesbian, gay, bisexual, transgendered
*$p < .01$. **$p < .001$.

Table 4.17. Post Hoc Tukey Test Results of ATCSOS Analysis of Variance, Mean Differences between Heterosexual and LGBT Females (N = 204)

Hypothesis 10

Hypothesis 10 predicted that participant's self-identified sexual orientation labels as reported in the Demographics section will correspond with overall personal identification ratings (profile scores) of participants as obtained in the PITCSOS. Initially this hypothesis was explored using a bivariate correlational analysis of self-identified sexual orientation labels and PITCSOS items. Each participant's self-identified sexual orientation label from the Demographics section was converted to the equivalent Kinsey score (1 = heterosexual, 4 = bisexual, 7= homosexual) and analyzed against the Kinsey Scale-rated items of the PITCSOS. As presented in Table 4.18, each item from the PITCSOS correlated positively and significantly with sexual orientation label at the .001 level or below. As demonstrated by these results, sexual orientation label was significantly correlated with PITCSOS responses in this sample. To further investigate whether these findings maintained significance within each sexual orientation cohort, a one-way ANOVA on the full PITCSOS was conducted next. Finally, a one-way ANOVA was performed on PITCSOS final average scores rather than each individual item to investigate whether the simple Kinsey rating scores of 1, 4, or 7, as indicated in the Demographics section, were as significantly adequate in profiling participants' sexual orientations as the full PITCSOS scale.

The results of the ANOVA conducted on all PITCSOS items individually are presented in Table 4.19, where it can be noted that each main effect was significant at .001 or below. The Bonferroni level of minimum significance for this ANOVA, which included all 21 items of the PITCSOS, was .00238. Thus, a significant main effect of

self-identified sexual orientation label occurred for every component on the PITCSOS scale with a family-wise error rate of .05. Post hoc Tukey tests were employed to investigate these significant main effects within each sexual orientation cohort for each PITCSOS item. As presented in Table 4.20, the results of the post hoc analysis indicated a significant difference between every sexual orientation group on every item at the .05 level of significance or below with the exception of one component, Social Preference Past. For this item, bisexual and homosexual participants did not differ significantly in their Kinsey scores, with means of 3.35 (SD = 1.73) and 4.71 (*SD* = 2.14) respectively and a mean difference of .54 ($p = .11$). To further illustrate the patterns of responses of each cohort, Table 4.21 presents the means and standard deviations of PITCSOS responses for each cohort. With the exception of Bisexual and Homosexual cohorts on the Social Preference Past item, each mean was significantly different from the mean of *every* other cohort in this table. Table 4.22 presents the results of the one-way ANOVA using average PITCSOS scores rather than the individual items. As illustrated in this table, a main effect of sexual orientation label from the Demographics section emerged ($F[2, 399] = 483.26$, $p < .0001$). The post hoc Tukey tests of this ANOVA are presented in Table 4.23, which show significant mean differences between every sexual orientation cohort at the $p<.0001$ level.

In examining the patterns and directionality of the significant mean differences, Table 4.21 illustrates that the Heterosexual cohort rated themselves significantly lower on every item than the Bisexual and Homosexual cohorts, with averages ranging from 1.51-2.36 ($M = 1.76$, $SD = 1.45$). This was expected, as "1" corresponded to *exclusive*

heterosexuality on the Kinsey Scale. The lowest average rating for the Heterosexual cohort occurred for the item of Behavior Past, with $M = 1.51$, $SD = 1.47$, and the highest occurred for Social Preference Past, with $M = 2.36$, $SD = 1.79$, indicating that the Heterosexual cohort rated their past behavior as the most exclusively opposite-sex oriented, and their past social preferences as the most same-sex oriented. Overall, the ratings of this cohort did not show any patterns of higher or lower ratings dependant on Time dimensions. In fact, the only items rated 2 or above by the Heterosexual cohort were the Social Preference items (Present, $M = 2.22$, $SD = 1.64$; Past, $M = 2.36$, $SD = 1.79$; and Future, $M = 2.27$, $SD = 1.79$), suggesting that this cohort's most same-sex preferences occurred in the realm of social preference. The overall average for this cohort was 1.72 ($SD = 1.45$), which, as presented in Table 4.22-4.23, was significantly distinct from the average PITCSOS scores of the other two cohorts. These results, in addition to the patterns of directionality of the individual PITCSOS items discussed above lends strong confirmatory support to the hypothesis that the self-identified sexual orientation label "heterosexual" corresponds well with the corresponding profile score obtained by the PITCSOS.

The Bisexual cohort also displayed rating patterns that corresponded strongly with the Kinsey conceptualization of bisexuality. The overall PITCSOS mean for the Bisexual cohort was 3.94, $SD = .98$, which corresponded strongly with the self-reported identification of "bisexual" (i.e., Kinsey Score = 4) in the demographics section. Collectively, the Bisexual cohort's averages on PITCSOS items ranged from 3.14-4.82, with item averages significantly higher on *every* item than the Heterosexual cohort, and

significantly *lower* on every item than the Homosexual cohort. These results implied that the Bisexual cohort indicated more same-sex preferences than the heterosexual cohort, but less same-sex preferences than the homosexual cohort, which corresponds to the homosexual-heterosexual duality expected on average from this population. The lowest average score for this cohort occurred for Relationship Status Past, with $M = 3.14$, $SD = 1.81$, and the highest occurred for Fantasy Present, with $M = 4.82$, $SD = 1.50$, suggesting that this cohort's past relationships were the most opposite-sex oriented, and their present fantasies are the most same-sex oriented. An interesting finding with this cohort occurred in that their future/ideal ratings, as well as present ratings were qualitatively higher than past ratings. This is particularly demonstrated for the component of Relationship Status. Relationship Status Past was the most opposite-sex oriented, as discussed above, while Relationship Status Present was more homosexually rated, at $M = 3.61$, $SD = 2.11$, and Relationship Status Future was decidedly more same-sex rated, at $M = 4.31$, $SD = 1.57$.

The Homosexual cohort displayed the same basic trends discussed above for the Bisexual and Heterosexual cohorts. The overall average PITCSOS score for this cohort was 5.72 ($SD = .96$), which showed significant correspondence to the self-identified label of "homosexual" (Kinsey Score = 7) in the Demographics section, as presented in the ANOVA results in Table 4.22. The averages for this cohort ranged from 4.52-6.58. As was expected from this cohort, the widest range of variability was displayed over the dimension of Time. The lowest-rated items occurred with the Past dimensions of Social Preference Past ($M = 4.52$, $SD = 1.53$), Self-Identification Past ($M = 4.71$, $SD = 2.14$), and Relationship Status Past ($M = 4.94$, $SD = 2.09$), indicating that the most opposite-sex

preferences of this cohort were expressed in the Past dimension as opposed to the Present or Future, and in areas that did not reflect emotional or physical preference. It is noted that Sexual Attraction Past, Behavior Past, Fantasy Past, and Emotional Preference Past (M = 5.25, SD = 1.59, M = 5.08, SD = 1.92, and M = 5.16, SD = 1.58 respectively), although rated lower than Present items, were not as heterosexually rated as the above three items. These results were expected, as the "coming out" process for many homosexual individuals often follows from more heterosexual-oriented behaviors and relationships in the past (Bohan, 1996). The highest rated items on the PITCSOS for the Homosexual cohort were indicated for Present and Future dimensions with the exception of Social Preference and Emotional Preference components, which were more opposite-sex oriented overall. Behavior Present was the highest rated item overall for the Homosexual cohort (M = 6.58, SD = 1.09), followed by Self Identification Present (M = 6.50, SD = 1.23), Self-Identification Future (M = 6.47, SD = 1.27), Relationship Status Present (M = 6.45, SD = 1.49), and Relationship Status Future (M = 6.44, SD = 1.41). These findings suggest that the strongest same-sex ratings within the Homosexual cohort were for the components of Self-Identification and Relationship Status.

Overall, participants from Heterosexual, Homosexual, and Bisexual cohorts reported Kinsey score patterns on the PITCSOS that were significantly different from each other. In total, the average PITCSOS scores for the Heterosexual, Bisexual, and Homosexual cohorts were 1.72 (SD = 1.45), 3.94 (SD = .98), and 5.72 (SD = .96) respectively, which as presented in Table 4.22-4.23 significantly corresponded with the self-identified sexual orientation labels of "heterosexual" (Kinsey Score = 1), "bisexual"

(Kinsey Score = 4), and “homosexual (Kinsey Score = 7) as reported in the Demographics section. These patterns were significantly distinct from the average PITCSOS scores of each of the other cohorts. In conjunction with the patterns of directionality of the individual PITCSOS items discussed above, these results lent robust support to the hypothesis that the self-identified sexual orientation label corresponded strongly with the average profile scores obtained by the PITCSOS.

Item	Pearson Correlation	Significance (2-tailed)
Sexual Attraction Present	.86*	.00
Sexual Attraction Past	.74*	.00
Sexual Attraction Future	.84*	.00
Behavior Present	.84*	.00
Behavior Past	.70*	.00
Behavior Future	.84*	.00
Fantasy Present	.80*	.00
Fantasy Past	.78*	.00
Fantasy Future	.83*	.00
Emotional Pref. Present	.76*	.00
Emotional Pref. Past	.70*	.00
Emotional Pref. Future	.79*	.00
Social Pref. Present	.65*	.00
Social Pref. Past	.52*	.00
Social Pref. Future	.65*	.00
Self-Identification Present	.86*	.00
Self-Identification Past	.63*	.00
Self-Identification Future	.85*	.00
Relationship Status Present	.81*	.00
Relationship Status Past	.66*	.00
Relationship Status Future	.83*	.00

Note. PITCSOS = Personal Identification Toward Sexual Orientation Components Scale.
*$p < .001$.

Table 4.18. Pearson Correlations between PITCSOS Items and Self-Reported Sexual Orientation Labels (N = 453)

Item	*F*	*p*
Sexual Attraction Present	615.29	.00
Sexual Attraction Past	267.07	.00
Sexual Attraction Future	521.35	.00
Behavior Present	543.80	.00
Behavior Past	216.15	.00
Behavior Future	539.45	.00
Fantasy Present	418.13	.00
Fantasy Past	350.33	.00
Fantasy Future	481.86	.00
Emotional Pref. Present	308.96	.00
Emotional Pref. Past	214.75	.00
Emotional Pref. Future	344.21	.00
Social Pref. Present	164.03	.00
Social Pref. Past	88.08	.00
Social Pref. Future	171.04	.00
Self-Identification Present	619.37	.00
Self-Identification Past	147.98	.00
Self-Identification Future	585.00	.00
Relationship Status Present	436.23	.00
Relationship Status Past	169.30	.00
Relationship Status Future	491.20	.00

Note. Independent variable =self-identified sexual orientation label. Dependent variable = PITCSOS scale. PITCSOS = Personal Identification Toward Sexual Orientation Components Scale.

Table 4.19. Analysis of Variance of PITCSOS by Self-Identified Sexual Orientation Label (N = 453)

	Post Hoc Tests (Mean Difference)		
Component and Cohorts	Heterosexual *N* = 206	Homosexual *N* = 198	Bisexual *N* = 49
Sexual Attraction Present			
Heterosexual		-4.73**	-2.64**
Homosexual	4.73**		2.09**
Bisexual	2.64**	-2.09**	
Sexual Attraction Past			
Heterosexual		-3.63**	-1.63**
Homosexual	3.63**		2.00**
Bisexual	1.63**	-2.00**	
Sexual Attraction Future			
Heterosexual		-4.72**	-2.59**
Homosexual	4.72**		2.13**
Bisexual	2.59**	-2.13**	
Behavior Present			
Heterosexual		-5.04**	-2.00**
Homosexual	5.04**		3.04**
Bisexual	2.00**	-3.04**	
Behavior Past			
Heterosexual		-3.57**	-1.70**
Homosexual	3.57**		1.87**
Bisexual	1.70**	-1.87**	
Behavior Future			
Heterosexual		-4.87**	-2.72**
Homosexual	4.87**		2.14**
Bisexual	2.72**	-2.14**	
Fantasy Present			
Heterosexual		-4.33**	-3.12**
Homosexual	4.33**		1.21**
Bisexual	3.12**	-1.21**	
Fantasy Past			
Heterosexual		-3.98**	-2.52**
Homosexual	3.98**		1.46**
Bisexual	2.52**	-1.46**	
Fantasy Future			
Heterosexual		-4.53**	-2.69**
Homosexual	4.53**		1.85**

Continued

Table 4.20. Post Hoc Tukey Test Results of PITCSOS Analysis of Variance, Mean Differences between Sexual Orientation Cohorts

Table 4.20 Continued

	Post Hoc Tests (Mean Difference)		
Component and Cohorts	Heterosexual $N = 206$	Component and Cohorts	Heterosexual $N = 206$
Bisexual	2.69**	-1.85**	
Emotional Pref. Present			
Heterosexual		-3.91**	-2.16**
Homosexual	3.19**		1.75**
Bisexual	2.16**	-1.75**	
Emotional Pref. Past			
Heterosexual		-3.28**	-2.00**
Homosexual	3.28**		1.28**
Bisexual	2.00**	-1.28**	
Emotional Pref. Future			
Heterosexual		-3.93**	-2.34**
Homosexual	3.93**		1.60**
Bisexual	2.34**	-1.60**	
Social Pref. Present			
Heterosexual		-2.84**	-1.78**
Homosexual	2.84**		1.06**
Bisexual	1.78**	-1.06**	
Social Pref. Past			
Heterosexual		-2.16**	-1.63**
Homosexual	2.16**		.54
Bisexual	1.63**	-.54	
Social Pref. Future			
Heterosexual		-2.79**	-2.09**
Homosexual	2.79**		.70*
Bisexual	2.09**	-.70*	
Self-Identification Present			
Heterosexual		-4.95**	-2.70**
Homosexual	4.95**		2.25**
Bisexual	2.70**	-2.25**	
Self-Identification Past			
Heterosexual		-3.17**	-1.82**
Homosexual	3.17**		1.35**
Bisexual	1.82**	-1.35**	
Self-Identification Future			
Heterosexual		-4.90**	-2.75**
Homosexual	4.90**		2.15**
Bisexual	2.75**	-2.15**	
Relationship Status Present			

Continued

Table 4.20 Continued

	Post Hoc Tests (Mean Difference)		
Component and Cohorts	Heterosexual *N* = 206	Component and Cohorts	Heterosexual *N* = 206
Heterosexual		-4.89**	-2.05**
Homosexual	4.89**		2.84**
Bisexual	2.05**	-2.84**	
Relationship Status Past			
Heterosexual		-3.42**	-1.61**
Homosexual	3.42**		1.80**
Bisexual	1.61**	-1.80**	
Relationship Status Future			
Heterosexual		-4.87**	-2.74**
Homosexual	4.87**		2.13**
Bisexual	2.74**	-2.13**	

Note. PITCSOS = Personal Identification Toward Sexual Orientation Components Scale.
*$p < .05$. **$p < .001$.

	Heterosexual		Bisexual		Homosexual	
	N = 206		*N* = 49		*N* = 196	
Item	*M*	*SD*	*M*	*SD*	*M*	*SD*
Sexual Attraction Present	1.65	1.56	4.29	1.35	6.38	1.09
Sexual Attraction Past	1.63	1.57	3.26	1.57	5.25	1.59
Sexual Attraction Future	1.64	1.64	4.23	1.49	6.36	1.22
Behavior Present	1.54	1.58	3.54	2.04	6.58	1.31
Behavior Past	1.51	1.47	3.21	1.82	5.08	1.92
Behavior Future	1.55	1.59	4.27	1.53	6.41	1.34
Fantasy Present	1.69	1.54	4.82	1.50	6.03	1.51
Fantasy Past	1.67	1.48	4.19	1.45	5.65	1.56
Fantasy Future	1.65	1.56	4.33	1.34	6.18	1.38
Emotional Pref. Present	1.94	1.65	4.10	1.70	5.85	1.45
Emotional Pref. Past	1.87	1.56	3.88	1.80	5.16	1.58
Emotional Pref. Future	1.94	1.69	4.27	1.22	5.87	1.36
Social Pref. Present	2.22	1.64	4.00	1.52	5.06	1.49
Social Pref. Past	2.36	1.79	3.98	1.57	4.52	1.53
Social Pref. Future	2.27	1.68	4.37	1.09	5.06	1.44
Self-Identification Present	1.55	1.54	4.25	1.47	6.50	1.23
Self-Identification Past	1.54	1.55	3.35	1.73	4.71	2.14
Self-Identification Future	1.57	1.60	4.32	1.34	6.47	1.27
Relationship Status Present	1.56	1.68	3.61	2.11	6.45	1.49
Relationship Status Past	1.53	1.63	3.14	1.81	4.94	2.09
Relationship Status Future	1.57	1.68	4.31	1.57	6.44	1.41

Note. PITCSOS = Personal Identification Toward Sexual Orientation Components Scale.

Table 4.21. Means and Standard Deviations of PITCSOS Component Ratings by Self-Identified Sexual Orientation Label

Scale	*F*	*P*
PITCSOS	483.26	.00

Note. PITCSOS = Personal Identification Toward Sexual Orientation Components Scale.

Table 4.22. Analysis of Variance of PITCSOS Totals by Self-Identified Sexual Orientation Label (N = 400)

	Post Hoc Tests (Mean Difference)		
Cohort	Heterosexual	Homosexual	Bisexual
	N = 206	*N* = 198	*N* = 49
Heterosexual		-4.00*	-2.22*
Homosexual	4.00*		1.78*
Bisexual	2.22*	-1.78*	

Note. PITCSOS = Personal Identification Toward Sexual Orientation Components Scale.

Table 4.23. Post Hoc Tukey Test Results of PITCSOS Totals Analysis of Variance, Mean Differences between Sexual Orientation Cohorts

CHAPTER 5

DISCUSSION

Overview of Study

Despite a growing literature addressing sexual minorities, the mechanisms by which sexual orientation is measured for research still remains underdeveloped. Given concern over the lack of methodological consistency and construct validity in the literature, as well as an interest in understanding how sexual orientation is socially constructed in academic and layperson communities, the present study endeavored to explore the role of cultural context in conceptualizing sexual orientation. Cultural context in this study referred to sexual orientation communities, layperson versus expert communities, and communities defined by other variables such as sex, ethnicity, and age. Hence, this study sought to obtain knowledge that would contribute to a broader understanding of this issue for use in further studies addressing the measurement of sexual orientation. To illustrate the importance of social construction and construct validity in the identification of sexual orientation groups were two major underlying goals of this study.

Accordingly, the main purpose of this study was to add to the existing knowledge of the conceptualization and operationalization of sexual orientation. To achieve this purpose, instruments were created to assess Attitudes Toward Components of Sexual Orientation (the ATCSOS), as well as Personal Identification Toward Components of Sexual Orientation (the PITCSOS) within different sexual orientation communities (i.e., heterosexual, and lesbian, gay, bisexual, and transgendered [LGBT] cohorts), and between these sexual orientation communities and the academic/research community (i.e., the 'experts', or EXP). Specifically, these scales investigated the social construction and personal identification with the following components which have been argued in the literature to be important in the definition and measurement of sexual orientation: Sexual Behavior, Attraction, Fantasy, Emotional Preference, Social Preference, Sexual Orientation Self-Identification, Current Relationship Status, Self-Acceptance of Current Sexual Orientation Identity, Gender Identity, Sex-Role Identity, Social Context, Internalized Sociocultural Experiences, Biology, and Time. It was hypothesized that members of the Expert cohort would rate a higher number of these components as significantly more important in conceptualizing sexual orientation than either the Heterosexual or LGBT cohorts, thus reflecting a disconnect between the social construction of sexual orientation between these communities. Furthermore, it was hypothesized that significant differences between sexual orientation cohorts in ratings of sexual orientation components would emerge, indicating substantial differences in the meaning of sexual orientation among these communities. Other hypotheses examining the relationships among these variables investigated sex and sex-by-sexual-orientation

differences. Finally, it was hypothesized that participants' ratings of personal identification with the components under study would support a social constructionist rather than an essentialist conceptualization of the measurement of sexual orientation for research purposes.

Scale Construction and Validation

The components included in the present study were gathered from prior data and theory concerning the conceptualization and operationalization of sexual orientation in the literature. The scales constructed for use in this study demonstrated adequate reliability alphas of .78 for the ATCSOS, and .98 for the PITCSOS. Exploratory factor analysis provided further support for the construction of these instruments by the clear emergence of factors underlying the structure of each instrument. For the ATCSOS, four factors emerged that collectively accounted for 55% of the total variance. These factors were named General Sexual Orientation Components, Attraction/Fantasy Components, External Social-Cultural Components, and Temporal-Biological components. For the PITCSOS, three factors emerged that collectively accounted for 92% of the variance, and were named Present/Ideal Preferences, Socialization Preferences, and Past Preferences. The PITCSOS scale was nearly identical to the Klein Grid (Klein, 1985) which was also subjected to a factor analysis study by Weinrich (1993). In this study, Weinrich (1993) conducted a factor analysis in which the components of Attraction, Behavior, Fantasy, Emotional Preference, Social Preference, Self-Identification, and Lifestyle (analogous to Social Preference) were rated using the Kinsey Scale with Past, Present, and Future dimensions for each component. The PITCSOS in the present study incorporated the

same components and rating structure with the addition of one component, Relationship Status Past/Present/Future. Weinrich (1993) reported the emergence of 3 factors from his analysis, which he called "General Sexual Orientation," associated with all components; "Socialize With," associated with the Lifestyle and Social/Emotional preference items; and "Ideal Versus Past/Present," which was associated with Future items only. In comparison to these published findings, the factor analysis conduced on the PITCSOS in the present study replicated the emergence of only one factor, Past Preferences. One explanation for these discrepancies may be due to differences in sample size, sample demographics, and time of collection. The sample analyzed by Weinrich (1993) utilized 78 self-identified homosexual and bisexual men only from an early 1990's California HIV treatment center, and 90 presumed heterosexual men from a fat metabolism study. The participants in the present study included males, females, and transgendered individuals who were recruited nationally through on-line LGBT community sources, and from a Midwestern university setting. The demographic make-up of this sample was quite different from Weinrich's (1993) male-only sample, and may account for the differences in factorial design for the PITCSOS suggested in the present study.

Layperson Versus Expert Community Variables

Chung and Katayama (1996) reported self-identified label to be the most widely used method of grouping participants into sexual orientation groups in research. Perhaps the most promising finding in this study was that all community affiliation cohorts agreed on the value of Self-Identification in the conceptualization of sexual orientation. This finding suggests a similar social construction of this component across groups. It also

lends credence to the construct validity of sexual orientation as operationalized by Self-Identification alone, which is currently how sexual orientation is most commonly measured. There were four additional components which all three community cohorts considered to be equally important in conceptualizing sexual orientation: Fantasy, Emotional Preference, Biology, and Time. The component of Attraction was unique, in that technically there were differences in its numeric rating across groups, but at the same time all this component was consistently rated as the most important component in conceptualizing sexual orientation by *all* groups. Arguably, Attraction could be considered equally important in defining sexual orientation across cohorts. These results suggest that studies employing these components in assessing the sexual orientation of participants potentially hold more robust construct validity than measures using the other components investigated in this study.

Nine of the 14 components in this study were rated in some way differently among the cohorts of Heterosexuals, Homosexuals, and Experts: Behavior, Social Preference, Relationship Status, Sexual Orientation Identity Self-Acceptance, Gender Identity, Sex Role Identity, Social Context, and Sociocultural Experiences. In examining the directionality and ranges of the components that the cohorts disagreed upon, the Expert cohort was found to have overwhelmingly rated the above nine components as significantly *less* important in defining sexual orientation than the other two groups. This outcome directly opposed the stated hypothesis that members of the Expert community would endorse the most components in defining sexual orientation. In contrast, the Expert cohort indicated a very narrow conceptualization of sexual orientation, rating only

six components above the midpoint level of importance: Attraction, Self-Identification, Fantasy, Emotional Preference, Biology, and Behavior. Possible explanations from the literature for these findings are not available, as this population has not been previously investigated in conjunction with the social construction of sexual orientation. To speculate, experts might endorse a social construction of sexual orientation that is biased in favor of components that are currently the most frequently used in measuring these populations. With the exception of Biology, the other top rated components by the Expert cohort are among the most common methods of assessing sexual orientation for research (Chung & Katayama, 1996). Further study into the social construction of sexual orientation by researchers and academics in the field may reveal further knowledge in this area.

In terms of the other predictions in this analysis, the Heterosexual cohort reported Behavior and Relationship Status to be more important than the other two cohorts, which was as predicted. These findings supported previous literature suggesting that heterosexuals value overt sexual and relationship behavior more highly than LGBT groups in conceptualizing sexual orientation (Neighbors, 2000; Rust, 1993). It was also predicted that this cohort would rate Biology as more important than the other groups, but this hypothesis was not supported. Heterosexuals in this study valued Biology similarly to both the Expert and LGBT groups. Traditionally, it has been heterosexuals who have attempted to explain homosexuality and bisexuality in terms of deviation from the heterosexual 'norm' with biologically-based models such as genetics, hormonal imbalance, or prenatal environment (Panton, 1960; Pierce, 1973; Singer, 1970). A

plausible interpretation of the finding that biology was not valued higher in the Heterosexual cohort could demonstrate a shift from these older views to a newer more accepting conceptualization of sexual orientation.

Also in light of previous findings in the literature, it was predicted that the LGBT cohort would rate Self-Identification, Emotional Preference, and Social Preference higher than the Expert or Heterosexual cohorts (Bailey, 2003; Jagose, 1996; Neighbors, 2000; Rust 1993). It has been argued that these components are more valued in the LGBT community in defining one's sexual orientation than in the heterosexual community (Bailey, 2003; Jagose, 1996; Neighbors, 2000; Rust 1993). In opposition to these predictions, all three cohorts agreed in their ratings of Self-Identification and Emotional Preference. In addition, the difference in Social Preference ratings occurred between the Expert and Heterosexual cohorts, and not between the LGBT and either of the other two cohorts. Thus, this prediction was not supported by this study, as the LGBT cohort was found to value Self-Identification, Emotional Preference, and Social Preference similarly than the other cohorts. These findings run counter to the literature, which could suggest two possible interpretations for these findings. First, the make-up of the sample used in the present study may contain significant demographic differences from those used in the literature upon which these hypotheses were based. Second, the present findings could suggest that significant changes are occurring in the LGBT, heterosexual, and expert communities. It is plausible that such variables as increased mainstream exposure of LGBT communities in movies and television, as well as increased political attention and ongoing consciousness-raising efforts on the part of LGBT-rights advocates may be

collectively acting to cause these respective community's conceptualizations of sexual orientation to align more so than in the past.

Sexual Orientation Community Variables

Patterns of component ratings on the ATCSOS were also explored by sexual orientation label (heterosexual, homosexual, and bisexual), and sex (male, female, and transgendered). In terms of grouping participants into sexual orientation cohorts for this study, the validity and reliability of basing these cohorts on Self-Identified Sexual Orientation Label alone was supported by the analysis of the PITCSOS, which is presented in Chapter 4 and discussed below. Overall, these cohorts agreed on the value of five components in conceptualizing sexual orientation: Fantasy, Emotional Preference, Social Preference, Self-Identification, and Time. As for the other components, those in the Heterosexual cohort rated Behavior, Relationship Status, Sexual Orientation Identity Acceptance, Gender Identity, Sex Role Identity, Social Context, and Sociocultural Experiences as *more* important and Attraction as *less* important than the Homosexual cohort in conceptualizing sexual orientation. The Heterosexual cohort also rated seven components as *more* important than the Bisexual cohort: Behavior, Relationship Status, Gender Identity, Sex Role Identity, Social Context, Sociocultural Experiences and Biology. A meaningful finding of this analysis was that overall, heterosexuals conceptualized sexual orientation as considerably broader than homosexual and bisexual participants. As the literature offers no direct basis of explanation for this finding, further conjecture is warranted. One possible explanation for the uniformly high ratings by heterosexuals of all 14 investigated components in this study is that it reflects a

lack of deep thought on the issue of defining sexual orientation for heterosexuals on average. As members of the sexual orientation majority, heterosexuals' own sexual development may be less salient to them. Conversely, it could also indicate a more inclusive, liberal social construction of sexual orientation than homosexual or bisexual populations. In turn, homosexual and bisexual participants appeared to conceptualize sexual orientation more strictly than the Heterosexual cohort (but not nearly as narrowly as the Expert cohort, as discussed above). This could be indicative of more bias on the part of LGBT populations in defining sexual orientation. Some retrospective studies have suggested that sexual minority populations are more conscious of their own sexual orientation development than the majority heterosexual community (Bailey, 2000; Bailey, Dunne, & Martin, 2000; Bem, 1996). Perhaps the responses of homosexual and bisexual participants in this study reflect a deeper understanding and saliency of their own unique sexual orientation journeys, while heterosexuals might be thinking less of their own development and more in terms of generalities. For example, in considering the component of Emotional Preference in this study, a heterosexual participant might have ranked it highly, reasoning that it might be important to some people in determining their sexual orientation, while a homosexual or bisexual participant might rank it lower, reasoning that Emotional Preference had little to do with *their own* sexual orientation.

Another unexpected but meaningful finding from this analysis was that the Homosexual and Bisexual cohorts valued every ATCSOS component similarly with the exception of Biology, which homosexuals rated as significantly higher in importance than bisexuals. The literature addressing bisexual versus homosexual differences is

inconsistent, with some studies suggesting more overlap and some suggesting more distinction between the groups (Berkey, Perelman-Hall, & Kurdek, 1990; Cohen & Tannenbaum, 2001; Loewenstein, 1985; Rust, 1992). The findings of this study contribute to the literature by illuminating at least one area in which homosexual and bisexual communities may overlap. In considering the single component of Biology that the Homosexual and Bisexual cohorts disagreed upon, an interpretation for this finding is not suggested in the existing literature. To speculate, it may be that bisexuals on average consider sexual orientation to be more of a choice (i.e., a 'sexual preference) and less of a predisposed 'orientation.' Bisexual individuals may perceive themselves as having more of a choice in romantic relations within a society dominated by 'monosexual' orientations (heterosexual and homosexual) that are limited to one sex only. Furthermore, bisexuals may also display some degree of internalized 'bi-phobia,' in which they may perceive themselves as 'on the fence' or 'needing to make a decision' about which sex to focus on in their romantic relations (Hall & Pramaggiore, 1996; Namaste, 1996).

Sex and Sex- by-Sexual Orientation Variables

Sex differences were also considered in this study. The hypotheses that females would value Attraction and Emotional Preference more than males in conceptualizing sexual orientation, whereas males would value Behavior more than females, were based upon data and theory in the literature regarding sex and sexual orientation differences (Bem, 1996; Cohen & Tannenbaum, 2001; Jagose, 1996; Neighbors, 2000; Rust 1993). The results of the present study revealed no support for these hypotheses. In fact, only one significant difference on the basis of sex emerged from this study, for the component

of Fantasy, in which the Male cohort considered Fantasy to be significantly more important in conceptualizing sexual orientation than the Female cohort. No significant differences were found between the Transgendered cohort versus the other sex cohorts. This result was expected due to sampling limitations, and is discussed below in conjunction with the limitations of this study.

Sex-by-sexual orientation interactions were also examined in this study. Homosexual, bisexual, and heterosexual men agreed on all of the components on the ATCSOS except for Attraction and Sex Role Identity. Homosexual men considered Attraction to be significantly more important than either heterosexual or bisexual males in conceptualizing sexual orientation. Heterosexual males, in turn, considered Sex Role Identity to be significantly more important in conceptualizing sexual orientation than the homosexual, but not the bisexual, men. This finding might reflect a common prejudice held by heterosexual men that male sex role conformity (i.e., masculinity) is somehow related to sexual orientation (Eighner, 1995). This prejudice is also expressed in the stereotype that homosexual men are less masculine than heterosexual men, therefore displaying differences in sex role identity. That heterosexual males were found to value sex role identity more highly than homosexual males could reflect such stereotypes.

In contrast, the female-by-sexual orientation analysis in this study showed more variation in rankings across sexual orientation groups than the male-by-sexual orientation cohorts. Overall, the heterosexual, bisexual, and homosexual females in this study agreed on the importance of the following 8 items in conceptualizing sexual orientation: Attraction, Fantasy, Emotional Preference, Social Preference, Self-Identification, Social

Context, Sociocultural Experiences, and Time. In contrast, heterosexual females considered Behavior, Relationship Status, Sexual Orientation Identity Acceptance, Gender Identity, and Sex Role Identity to be more important in conceptualizing sexual orientation than both the Bisexual and Homosexual Female cohorts, and Biology to be more important than the Bisexual group only. A notable finding in this analysis was the divergence of opinion for the component of Biology, where bisexual females overwhelmingly rated Biology as less important than the heterosexual and homosexual female groups. This finding was noteworthy in that the overall findings for the full homosexual and bisexual sample also differed only on the component of Biology. The disagreement on Biology did not occur between the male homosexual and bisexual sample, which is itself an interesting finding. This implies that the difference in value of Biology in conceptualizing sexual orientation was unique to the female cohorts in this study. The literature offers no suggestions as to why this difference might occur. To speculate, perhaps the finding that female bisexuals thought Biology to be less important than male bisexuals reflects a societal difference in attitudes toward female as opposed to male bisexuals. It could be that more of a stigma is associated with male bisexuals than females, and as a result, female bisexuals perceive more of a 'choice' in the expression of their sexual orientations than do male bisexuals. Further research might shed light on these apparent differences.

Personal Identification Variables

The principle finding of this part of the analysis was that personal identification with the components investigated in this study correlated significantly with sexual

orientation label, as identified in the Demographics section. These significant correlations held firm when analyzed against PITCSOS averages (profile scores) *and* when analyzed against each PITCSOS item individually. Furthermore, each of the sexual orientation cohorts demonstrated significant differences from each other in patterns that corresponded to their respective Self-Reported Sexual Orientation Labels. Specifically, the Heterosexual cohort on average reported preferences on all component items within the range of 1.51-2.36 (M = 1.72, SD = 1.45), which corresponds well to the Kinsey Scale-based interpretation of heterosexuality as numbers 1-2 on the Kinsey Scale. Similarly, the self-identified Bisexual cohort reported average preferences within the range of 3.14-4.82 and a mean score of 3.94 (SD = .98), which also fit well within the Kinsey Scale-based interpretation of bisexuality as averaging at around 4 on the Kinsey Scale. Finally, with a mean of 5.72 (SD = .96) and an average range of 4.52-6.58, the Homosexual cohort also indicated preferences in accord wit the Kinsey-based interpretation of homosexuality as averaging within the 6-7 range on the Kinsey Scale. These findings supported Weinrich's (1993) earlier finding that sexual orientation label was the most significant predictor of overall Klein Grid score.

In addition to the findings directly related to the stated hypotheses, several theoretically informative findings also emerged in this analysis. When within-group patterns of preferences were examined more closely, the Heterosexual cohort indicated the most same-sex preferences in the Social Preference items. This finding may be related to the earlier finding that Social Preference was also rated as relatively unimportant in defining one's sexual orientation by the heterosexual cohort. It seemed as

though the Heterosexual cohort demonstrated preferences towards having same-sex friends but opposite-sex romantic partners, whereas the Homosexual and Bisexual cohorts indicated friendship preferences that aligned more with their romantic partner preferences.

Another noteworthy finding for the Bisexual cohort was the increase in reported homosexual preferences over time. This group displayed a pattern of indicating more opposite-sex preferences for Past items, while indicating more same-sex ratings for Present and Future items. On average, Relationship Status Past was rated as the most opposite-sex oriented component for the Bisexual group (M = 3.14, SD = 1.81), while Fantasy Present (M =4,82, SD = 1.50) and Relationship Status Future (M = 4.31, SD = 1.57) were rated as the most same-sex oriented. This increase in same-sex preferences over time was also demonstrated in the Homosexual cohort. As previously discussed, this pattern within the Homosexual cohort was expected, as variables related to the "coming out" process were anticipated. In addition, some data have suggested that homosexual and bisexual populations tend to become more homosexually oriented over time (Bailey, 2000; Jagose, 1996; Rust, 1992). The findings in this analysis thus lend further support to the existing literature.

Overall, the analysis of personal identification yielded several important findings. The most important finding was that personal identification with the components investigated in this study corresponded significantly with participants' Self-Reported Sexual Orientation Labels from the Demographics section, as predicted. This finding lend support for the use of Self-Reported Sexual Orientation Label as the grouping

variable for sexual orientation within the rest of the study. This finding also provided support for the validity of using Self-Reported Sexual Orientation Label in grouping participants into sexual orientation cohorts in other studies as well, in accordance with the findings of previous research (Weinrich, 1993). These results provided further evidence for the use of Self-Identified Sexual Orientation Label in grouping participants into sexual orientation cohorts for research purposes.

Limitations and Directions for Future Research

Directions for future research are largely informed by the limitations of the present study. Perhaps the most important limitation of this study was the sample size of the Expert cohort. The response rate of this sample was 29%, with 20 out of 70 individuals responding to the solicitation for the study. With this sample size and response rate, it is possible that a response bias existed for this cohort, possibly indicating that the sample who responded might be different from those who did not respond. A by-product of this small sample size was that the Expert cohort could not be further divided and analyzed by sex and sexual orientation sub-groups. It is possible that one of these variables may supersede that of the expert affiliation. Further investigation involving Expert samples should focus on increasing response rate, diversity, and overall sample size of this cohort. Further study should also explore any possible within group differences in this population.

Another important limitation arose from the fact that the samples on which the hypotheses were tested consisted primarily of Caucasian individuals (82% of the total sample) in the 18-24 age group. Because the heterosexual sample consisted of first-year

undergraduates at one Midwestern university, it is unclear whether these results will generalize to other heterosexual samples. Furthermore, the racial make-up of the LGBT and Expert cohorts was also heavily dominated by Caucasian participants. Of the total sample (N = 446), African Americans, Asian American/Pacific Islanders, Latino/Latina/Hispanics, and Native Americans comprised samples of 23, 33, 20, and 3 respectively. It would benefit further research in this area to recruit larger numbers of minority participants to address the issue of ethnic and generational variables in examining the social construction of sexual orientation.

A third limitation of this study concerns the examination of transgendered populations within this area of study. The present study included a sample of only nine individuals from the transgendered community. Similar to the ethnicity and age limitations discussed above, it is unclear whether the results of this study can be generalized to transgendered populations. The literature examining the relationship between gender identity and sexual orientation in general is still a relatively new area of study, and future investigation into the social construction of sexual orientation within this community stands to benefit this area immensely.

Another direction for future research arises logically from the finding that social construction of sexual orientation differs by such cultural contextual variables as sexual orientation, sex, and expert versus layperson affiliation. In light of this finding, the next theoretical question might be: Do such differences among participants affect the validity of using these components in the measurement of sexual orientation for research purposes? In other words, would differing social constructions of sexual orientation

components used in the assessment of sexual orientation result in sexual orientation cohorts that have been grouped incorrectly? The use of such methods may well result in some bisexuals being assigned to the heterosexual cohort, some homosexuals being placed in the bisexual cohort, and so on. The investigation of any such effects would represent an important next step in the examination of social context and the conceptualization of sexual orientation in sexual minority research.

Implications for Counseling Psychology

The findings of the present study contribute to the field of Counseling Psychology in two distinct ways. First, this study served to inform the multicultural tenets of counseling psychology by contributing to the knowledge of sexual orientation minority populations. The support lent to the hypothesis that different sexual orientation, sex, and academic communities conceptualize the construct of sexual orientation differently offers an important contribution to the field. Furthermore, multicultural research is informed by this study in terms of establishing a framework for future research in this area. The present study represents an important step towards the resolution of the debate regarding the measurement of sexual orientation in research. Further study based upon the results of this research stands to improve the general knowledge of sexual orientation minorities in Counseling Psychology by improving and bringing more consistency to the measures used in grouping these populations in research. The findings in this study also implicate areas of study that might serve in examination of other minority groups in multicultural research and practice. In particular, social context and social construction of important theoretical constructs may prove to be a significant variable in other areas of study, such

as ethnic and gender identity, which could in turn inform other areas of research within the field.

Second, the results from the present study offer distinct applications for counseling professionals in working with sexual minority groups. The results discussed herein support a broad conceptualization of sexual orientation in practice, suggesting that practitioners increase their awareness of the possibility that members of certain sexual minority populations may define themselves, and sexual orientation in general, differently from other populations. These results inform the general practice of multiculturalism in treatment, wherein each client's individual worldview, unique multicultural background, and unique conceptualizations of culture (including sexual orientation culture) are explored as a major component of practice. These findings support the argument that a wide variety of components may be at work in defining a client's sexual orientation (Bailey, 2000; Bem, 1996; Berkey, 1990; Coleman, 1987; De Cecco, 1981; Jagose, 1996; Klein, 1985, 1990; Neighbors, 2000; Sell, 1996, Weinrich, 1993), and that these components may mean different things to different clients. The notion of fluidity and flexibility in defining sexual orientation as proposed by queer theory is also supported by this study.

Conclusions

Overall, several important conclusions have been drawn from the present study. First, the findings clearly demonstrate differences in the social construction of sexual orientation on the basis of cultural context. All of the cohorts examined, regardless of sexual orientation community, sex, or layperson versus expert community conceptualized

sexual orientation differently, depending on which component was under consideration. This outcome provides strong evidence against the assumption that any component used to measure sexual orientation means the same thing to all populations under study. A striking result to emerge was that 10 of the 14 analyzed components demonstrated significant differences in cohorts' conceptualizations of sexual orientation: Sexual Behavior, Fantasy, Social Preference, Relationship Status, Sexual Orientation Identity Acceptance, Gender Identity, Sex Role Identity, Social Context, Sociocultural experiences, and Biology. These findings suggest that in studies where sexual orientation grouping methods include any of these components the validity of the methodology may be questionable. Only four components were arguably conceptualized equally across all investigated groups: Self-Identified Sexual Orientation Label, Attraction, Emotional Preference, and Time. That is, when examined by sex, sexual orientation, expert versus layperson affiliation, and sex-by-sexual orientation, the only components valued equally in the conceptualization of sexual orientation were Self-Identified Sexual Orientation Label, Attraction, Emotional Preference, and Time. Time in this study referred to Past, Present, and Future (Ideal) dimensions of sexual orientation components, indicating that an individual's sexual orientation may vary as a function of time. It is these four components which are most likely to mean the same thing to all populations under study. Therefore these findings suggest that the components of Self-Identified Sexual Orientation Label, Emotional Preference, and Time offer the most validity and consistency in grouping participants into sexual orientation groups in research.

Furthermore, when considered in conjunction with the existing literature, the results of this study lend support to the specific use of Self-Identified Sexual Orientation Label only in grouping participants into sexual orientation cohorts for research purposes. While the use of Emotional Preference, Attraction, and Time are also supported by this study, Self-Reported Sexual Orientation Label alone has additional support and data from the literature in favor of its use. Self-Reported Sexual Orientation Label is currently the most commonly used assessment in sexual orientation research (Chung & Katayama, 1996). In addition, Self-Reported Sexual Orientation Label was indicated as the best predictor of multi-component sexual orientation scale averages (i.e., profile scores) of any other single component by Weinrich (1993) in his factor analysis of the multi-component Klein Grid. The results obtained from the analysis of the PITCSOS, on which every item was significantly related to Self-Identified Sexual Orientation Label, also provides strong support of Weinrich's (1993) findings. These results are promising to the field, in that they offer additional support for the use of a sexual orientation measure that is (a) already the most commonly used in research today, and (b) the simplest and possibly the most parsimonious method of sexual orientation measurement available.

In addition, the results offer support of the social constructionist point of view over that of an essentialist viewpoint in considering the conceptualization and measurement of sexual orientation. Essentialists might argue that the most accurate measurements of sexual orientation are those asking indirect but related questions about multiple components. The findings of the present study strongly suggest that the overt

route, i.e., asking for Self-Identified Sexual Orientation Label alone, is equally as effective in accurately assessing sexual orientation for research purposes.

In conclusion, the present study represents an important first step toward understanding the relationship between social context and the conceptualization of sexual orientation. The lack of consensus in defining and measuring sexual orientation is informed by the findings that social context, in terms of sex, sexual orientation, and layperson versus expert community, *does* represent an important variable in the conceptualization of sexual orientation. Furthermore, the findings suggesting that self-reported sexual orientation label corresponded significantly with all examined components support earlier data on the use of this component as an accurate means of dividing subjects into sexual orientation cohorts. Researchers who study sexual orientation must take into account how different sexual orientation communities conceptualize sexual orientation because it may effect how individuals self-identify, thus affecting comparison between groups. More research is warranted to determine the finer distinctions of the social construction of sexual orientation among community groups and how these differences impact the assessment of sexual orientation for research.

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APPENDIX A

SOLICITATION FORM FOR REP (PSYCHOLOGY 100) WEB SITE

Experiment CH-1 (Counseling/Highlen-#1). Attitudes Towards Sexual Orientation.

Requirements: Fluency in English is required, as survey materials are in English. Participants must also be at least 18 years of age.

Description: Purpose: to investigate characteristics of sexual orientation. In particular, we are interested in people's personal opinions as to what characteristics are most important in defining one's sexual orientation. The questions in this study ask you to rate 11 different characteristics of sexual orientation. Participants are also asked to provide general demographic information, such as their age, race, etc. All participants are eligible to enter a drawing for two prizes of $50 each. Entry into the raffle is not contingent on full completion of the survey, or on how many items you choose to answer. An email address only is required for entry into the drawing, and this information will be kept separately from all other data submitted in this study.

Potential Risks: You may find some of the questions or answer choices unpleasant or upsetting. For example, questions may cause you to think about sensitive topics or unpleasant emotional or physical states. Also, as the internet is not a secure form of communication, complete confidentiality of submitted data cannot be guaranteed, although every effort will be made by the investigators to keep all submitted data secure.

Elements of Consent: Consent to participate in this study requires that you provide your birth date and site code (provided after you register). You must enter these values before entering the site, and doing so implies informed consent to participate.

APPENDIX B

SOLICITIATION LETTER, EXPERT COHORT

Sexuality Psychological Study Needs Your Input

Researchers at The Ohio State University are investigating attitudes toward sexual orientation. We have created an online survey at _____ and invite you to take a few moments to fill it out. The purpose of this survey is to better understand the attitudes of a variety of different people with regard to sexual orientation. We hope to improve future research on important sexuality-related issues at OSU and other universities. It takes approximately 15 minutes to complete the survey.

As an added incentive to complete the survey, all participants are eligible to enter a drawing for two prizes of $50 each. Entry into the raffle is not contingent on full completion of the survey, or on how many items you choose to answer. An email address only is required for entry into the drawing, and this information will be stored independently from your responses to the study questions.

Consent to participate in this study requires that you provide your birth date and the following site code: EXP. You must enter these values before entering the site, and doing so implies informed consent to participate, as well as verification that you are at least 18 years of age. Potential risks of this study include possibly finding some of the questions or answer choices unpleasant or upsetting. For example, questions may cause you to think about sensitive topics or unpleasant emotional or physical states. Also, as the internet is not a secure form of communication, complete confidentiality of submitted data cannot be guaranteed, although every effort will be made by the investigators to keep all submitted data secure.

We want to hear from you! Please go to our web page and complete the survey.

Thanks for your support, and please tell your friends.

APPENDIX C

INTRODUCTION TO STUDY AND CONSENT FORM

Welcome to The Ohio State University Human Sexuality Study

PURPOSE AND BRIEF DESCRIPTION OF STUDY
The purpose of this study is to investigate characteristics of sexual orientation. In particular, we are interested in people's personal opinions as to what characteristics are most important in defining one's sexual orientation. The questions in this study ask you to rate 11 different characteristics of sexual orientation.

Our research team in the Department of Psychology at The Ohio State University is composed of one faculty member and one graduate student. We believe that the investigation of these characteristics will provide improved psychological measurement tools that will further research on important sexuality and sexual orientation issues at OSU and other universities.

This study has been reviewed by The Ohio State University Institutional Review Board. If you have any questions or concerns about your participation in this study, please contact the co-investigator at ilanat@msn.com.

POSSIBLE RISKS/BENEFITS OF PARTICIPATION IN THIS STUDY
Possible benefits:

You may feel empowered by completing this questionnaire. Often the experience of reflecting on your sexuality and how you conceive of it in general can have a positive effect in terms of self-awareness and introspection.

You may feel encouraged that researchers are doing something constructive to further the study of sexuality and sexual orientation minorities in particular.

Possible risks:

You may find some of the questions or answer choices unpleasant or upsetting. For example, questions may cause you to think about topics you consider sensitive in nature.

You may feel that your answers to some of the questions are wrong. There are no right or wrong answers to these questions. Feel free to share your concerns with the co-investigator through the email address given above.

As internet transmission of data is not a fully secure form of communication, complete anonymity of responses cannot be guaranteed. Similarly, complete confidentiality of your responses cannot be guaranteed, although every effort will be made by the researchers to ensure the security of all submitted information. All responses to items in this study are designed to be as anonymous as possible. IP addresses, names, initials or other identifying information are not collected for the purposes of this study. Once you complete the questionnaire and click the "Finished – Submit" button, your responses will be stored on a server and will be accessible only to the primary investigators of this study.

INSTRUCTIONS FOR COMPLETION OF THE STUDY

In this study you will be asked a series of questions about your opinions in defining sexual orientation. You will also be asked to report general demographic information about yourself, such as your age, race, etc. Your participation in this study is voluntary. You are not required to complete the study, and you can discontinue participation at any time without any penalty. You are not required to answer every question, and may skip any item you do not feel comfortable answering. No information will be submitted to the server until you click on the final Finished – Submit button. Completion of the study is estimated to take approximately 15 minutes.

All participants are eligible to enter a drawing for two prizes of $50 each. Entry into the raffle is not contingent on full completion of the survey, or on how many items you choose to answer. An email address only is required for entry into the drawing, and this information will be stored independently from your responses to the study questions.

HOW TO GET MORE INFORMATION

If you want more information about this research, or if you have question or concerns as a result of completing this survey, please send your questions via email to the following address: ilanat@msn.com.

The following questions are required to enter this site. By answering these questions and clicking "Next," you are both implying consent to participate as well as verifying that you are at least 18 years of age.

1. You must be at least 18 to participate in this survey. By entering your birth date below you are verifying that you are at least 18 years of age (MM/DD/YYYY) _____.

2. Site Code

A site code is also required to enter this survey. It is located in the email you originally received about this study. Please enter that code below.
_____.

APPENDIX D

ATTITUDES TOWARD COMPONENTS OF SEXUAL ORIENTATION SCALE

INSTRUCTIONS: Please rate how important you believe each dimension is in **defining** a person's sexual orientation.

1	2	3	4	5	6	7
Not at all Important			Moderately Important			Very Important

1. **Sexual Attraction**: extent of sexual attractions toward members of the same, other, both sexes, or neither

2. **Behavior**: actual sexual behavior as opposed to attraction

3. **Fantasy**: sexual reactions based on imagination

4. **Emotional Preference**: interpersonal affection, not necessarily sexual behavior. This involves whether someone loves or likes only the opposite sex or whether they are also emotionally close to the same sex.

5. **Social preference**: closely related to emotional preference, but often different. A person may love only women but spend most of their social life with men. Some people, of all sexual orientations, only socialize with their own sex, while others socialize with the opposite sex exclusively.

6. **Sexual Orientation Self-Identification**: one's personal "label" of their own sexual orientation, such as "straight," "bisexual," or "gay," regardless of other factors such as sexual behavior or attraction.

7. **Current Relationship Status**: whether an individual is single, casually dating someone of either sex, or in a committed relationship.

8. **Self-Acceptance of Current Sexual Orientation Identity**: level of comfort with and acceptance of current sexual orientation identity.

9. **Gender Identity**: an individual's basic conviction of being male or female, though not contingent upon the individual's biological sex

10. **Sex-Role Identity**: adherence to the culturally created behaviors or attitudes deemed appropriate for males and females

11. **Social Context**: cultural factors, such as racial or ethnic heritage and beliefs, including beliefs about sexual behavior and sexual orientation

12. **Internalized Sociocultural Experiences**: individuals may have very different learning experiences related directly or indirectly to sexual orientation. These might include different cultural factors, oppression, discrimination, education, socioeconomic factors, and direct or indirect experiences of homophobia

13. **Biology**: genetics, evolution, hormones, or other natural factors that might play a role in sexual orientation

14. **Time**: change in any of the above dimensions of sexual orientation over time (for example, currently identifying as lesbian, but identifying as bisexual in the past), or the stability of aspects of sexual orientation over time

APPENDIX E

PERSONAL IDENTIFICATION WITH COMPONENTS OF SEXUAL

ORIENTATION SCALE

INSTRUCTIONS: Please rate **yourself** on the same dimensions as the previous page, using the following scale:

1 = Exclusively heterosexual
2 = Predominantly heterosexual but incidentally homosexual
3 = Predominantly heterosexual but more than incidentally homosexual
4 = Equally heterosexual and homosexual
5 = Predominantly homosexual but more than incidentally heterosexual
6 = Predominantly homosexual but only incidentally heterosexual
7 = Exclusively homosexual

Sexual Attraction: extent of sexual attractions toward members of the same, other, both sexes, or neither

1. – AT THE PRESENT TIME
2. – IN YOUR PAST
3. – IDEALLY (IN THE FUTURE)

Behavior: actual sexual behavior as opposed to attraction

4. – AT THE PRESENT TIME
5. – IN YOUR PAST
6. – IDEALLY (IN THE FUTURE)

Fantasy: sexual reactions based on imagination

7. – AT THE PRESENT TIME
8. – IN YOUR PAST
9. – IDEALLY (IN THE FUTURE)

Emotional Preference: interpersonal affection, not necessarily sexual behavior. This involves whether someone loves or likes only the opposite sex or whether they are also emotionally close to the same sex.

10. – AT THE PRESENT TIME
11. – IN YOUR PAST
12. – IDEALLY (IN THE FUTURE)

Social preference: closely related to emotional preference, but often different. A person may love only women but spend most of their social life with men. Some people, of all sexual orientations, only socialize with their own sex, while others socialize with the opposite sex exclusively.

13. – AT THE PRESENT TIME
14. – IN YOUR PAST
15. – IDEALLY (IN THE FUTURE)

Sexual Orientation Self-Identification: one's personal "label" of their own sexual orientation, such as "straight," "bisexual," or "gay," regardless of other factors such as sexual behavior or attraction.

16. – AT THE PRESENT TIME
17. – IN YOUR PAST
18. – IDEALLY (IN THE FUTURE)

Current Relationship Status: whether an individual is single, casually dating someone of either sex, or in a committed relationship.

19. – AT THE PRESENT TIME
20. – IN YOUR PAST
21. – IDEALLY (IN THE FUTURE)

APPENDIX F

DEBRIEFING STATEMENT

Thank you for your willingness to participate in this study. Your input is greatly appreciated.

If in the course of this experiment you have developed concerns or uncertainties about your feelings or about yourself, or if you feel any type of distress related to your responses, you may wish to seek counseling. If you wish to do this, please contact your school's counseling or psychological services office for counseling or referrals. If you are an Ohio State University student and wish to seek counseling, you may find these services available in Townshend Hall at the Psychological Services Center (614-292-2059), or the OSU Counseling and Consultation Services (614-292-5766). In addition, you may wish to refer to one or more of the online resources that are listed below. These sites have resource links that you might find helpful.

www.dv-8.com/resources/us/
This site offers links and search engines for locating United States, international, and local gay and lesbian resources, organized by topic and location.

www.glaad.org/glaad/electronic/online-resources.html
This is the GLAAD (Gay and Lesbian Alliance Against Defamation) list of resources.

www.ngltf.org/ngltflink.html#web
This is the NGLTF (National Gay and Lesbian Task Force) list of resources.

www.pflag.org/store/resource/info.html
This is the PFLAG (Parents, Families and Friends of Lesbians and Gays) list of resources.

www.queer.com/queeramerica/

> This is QueerAmerica, a database published by OutProud!, The National Coalition for Gay, Lesbian, Bisexual and Transgender Youth. It is the largest collection of lesbigay resources in the nation.

If you would like to contact the investigators directly with concerns or questions regarding this research, please send correspondence to the following email address: ilanat@msn.com.

For those who have completed the study, we are offering two cash prizes of $50 each.

The winners will be selected randomly from those who have completed the survey and entered the raffle. Your chances of winning a prize are not based on the number of responses.

If you want to enter the raffle, click on the Next Raffle button.

If you do not want to enter the raffle, you may exit this browser.

APPENDIX G

RAFFLE PARTICIPATION FORM

To participate in the raffle, you must be willing to submit your email address to this study's co-investigator. This personal information will be stored completely independently from your responses to the study. Providing this personal information does theoretically compromise your anonymity, however, the study administrators will not link this personal information to your study responses in any way.

Participation in the raffle is voluntary. The winners will be selected randomly from the pool of raffle participants. We are offering two cash prizes of $50 each.

To participate in the raffle, enter the following information and then click the Submit button. Duplicates will be removed from the raffle entries, so please do not make multiple submissions.

Thank you again for your participation.

Please enter an email address: _____

APPENDIX H

DEMOGRAPHIC QUESTIONNAIRE

Please provide the following basic information about yourself.

1. Ethnicity/Race
    - o African American
    - o Asian American/Pacific Islander
    - o Biracial
    - o Caucasian (White)
    - o Latino/Hispanic
    - o Native American/Indigenous Peoples
    - o Other (please specify): _____

2. Highest Level of Education
    - o Elementary school
    - o Junior high or middle school
    - o Some high school
    - o High school diploma/GED
    - o Some college
    - o College graduate
    - o Technical school graduate (associate's degree, etc)
    - o Some graduate school
    - o Graduate school degree

3. Sex
    - o Female
    - o Male
    - o Transgendered

4. Age in years: _____

5. Which sexual orientation label would you use to describe yourself?

- Heterosexual (Straight)
- Homosexual (Gay/Lesbian)
- Bisexual